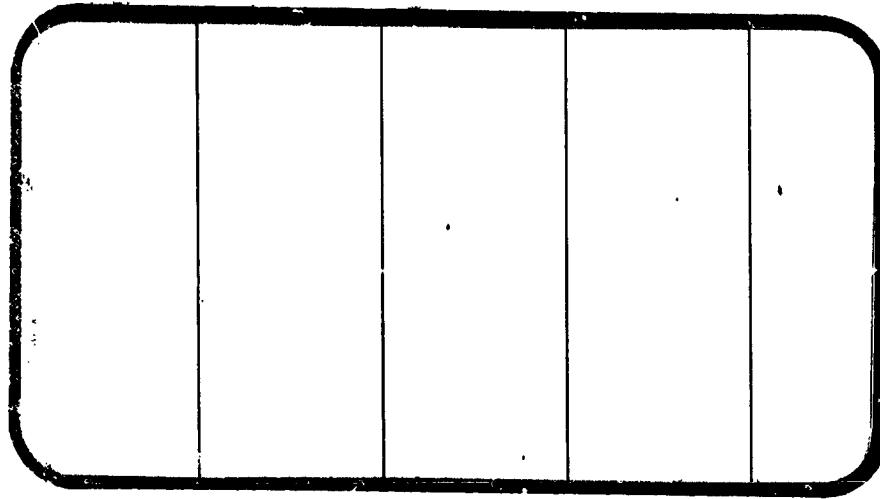




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(NASA-CR-134401) AERODYNAMIC RESULTS OF  
WIND TUNNEL SEPARATION TESTS ON A  
0.01-SCALE MODEL (32-015) SPACE SHUTTLE  
INTEGRATED VEHICLE IN THE CHRYSLER  
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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

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SEPARATION TESTS ON A 0.01-SCALE MODEL  
(32-OTS) SPACE SHUTTLE INTEGRATED VEHICLE  
IN THE AEDC-VKF-SWTA (IA57)

By

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Prepared under NASA Contract Number NAS9-13247

by

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National Aeronautics and Space Administration  
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ABSTRACT

Tested was the RI integrated space shuttle vehicle (configuration 3) in the AEDC-VKF SWTA. Primary test objective was to determine proximity force and moment data for the orbiter/external tank and SRB with and without separation rockets firing for both single and dual booster runs. Data were obtained at points  $t = 0$ ,  $t = 1.25$ , and  $t = 2$  seconds on the nominal SRB separation trajectory.

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- (D) CY, CYN, CN, CLM vs  $\beta$

NOMENCLATURE  
General

<u>SYMBOL</u>	<u>DEFINITION</u>
$c$	speed of sound; m/sec, ft/sec
$C_p$	pressure coefficient; $(p_1 - p_\infty)/q$
$M$	Mach number; $V/c$
$p$	pressure; N/m <sup>2</sup> , psf
$q$	dynamic pressure; $1/2\rho V^2$ , N/m <sup>2</sup> , psf
$RN/L$	unit Reynolds number; per m, per ft
$V$	velocity; m/sec, ft/sec
$\alpha$	angle of attack, degrees
$\beta$	angle of sideslip, degrees
$\psi$	angle of yaw, degrees
$\phi$	angle of roll, degrees
$\rho$	mass density; kg/m <sup>3</sup> , slugs/ft <sup>3</sup>

Reference & C.G. Definitions

$A_b$	base area; m <sup>2</sup> , ft <sup>2</sup>
$b$	wing span or reference span; m, ft
c.g.	center of gravity
$L_{REF}$	reference length or wing mean aerodynamic chord; m, ft
$S$	wing area or reference area; m <sup>2</sup> , ft <sup>2</sup>
MRP	moment reference point
XMRP	moment reference point on X axis
YMRP	moment reference point on Y axis
ZMRP	moment reference point on Z

SUBSCRIPTS

$b$	base
$l$	local
$s$	static conditions
$t$	total conditions
$\infty$	free stream

NOMENCLATURE (Continued)

Body-*z*-axis System

PLOT SYMBOL	SYMBOL	DEFINITION
$c_n$	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
$c_A$	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
$c_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$c_{A_b}$	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
$c_{A_f}$	CAF	forebody axial force coefficient, $c_A - c_{A_b}$
$c_m$	CIM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS/\text{REF}}$
$c_n$	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
$c_l$	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$
<u>Stability-Axis System</u>		
$c_L$	CL	lift coefficient; $\frac{\text{lift}}{qS}$
$c_D$	CD	drag coefficient; $\frac{\text{drag}}{qS}$
$c_{D_b}$	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
$c_{D_f}$	CDF	forebody drag coefficient; $c_D - c_{D_b}$
$c_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$c_m$	CIM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS/\text{REF}}$
$c_n$	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
$c_l$	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$
L/D	L/D	lift-to-drag ratio; $c_L/c_D$
L/DF	L/DF	lift to forebody drag ratio; $c_L/c_{D_f}$

NOMENCLATURE  
(ADDITIONS TO STANDARD LIST)

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$l_b$	L	orbiter body length, inches
O/ET		mated orbiter/external tank
$P_{t_j}$	PT-JET	total pressure of the separation motor jets, psia
$P_{TO}$		freestream total pressure
SRB		solid rocket booster
--	SRBP $\emptyset$ S	SRB position at one of three points in time on the nominal separation trajectory (see Configuration Investigated section for code explanation)
$X_{c.g.}$	XCG	reference center of gravity location
$X_{cp/l}$	XCP/L	longitudinal center of pressure, fraction of body length
$X_B, Y_B, Z_B$		SRB longitudinal, lateral, and vertical coordinates, inches
$X_O, Y_O, Z_O$		orbiter longitudinal, lateral, and vertical coordinates, inches
$X_T, Y_T, Z_T$		ET longitudinal, lateral, and vertical coordinates, inches
$\Delta X$	--	longitudinal separation distance of SRB nose from mated position, positive aft
$\Delta Y$	--	lateral separation distance of SRB nose from mated position; positive outboard
$\Delta Z$	--	vertical separation distance of SRB nose from mated position; positive away from orbiter
PCL	--	left SRB nozzle plenum chamber pressure, PSIA

NOMENCLATURE  
(ADDITIONS TO STANDARD LIST)

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$\Delta\alpha$	--	angular rotation in the pitch plane from mated condition; positive when nose moves away from O/ET
$\Delta\beta$	--	angular rotation in the yaw plane from mated condition; positive when nose moves away from O/ET
$\alpha_0/ET$		orbiter/external tank angle of attack
$\alpha_{SRB}$		solid rocket booster angle of attack
$\beta_0/ET$		orbiter/external tank angle of sideslip
$\beta_{SRB}$		solid rocket booster sideslip angle
MTL		total mass flow rate through left SRB nozzle, lbm/sec.
L-SRB		left solid rocket booster position 1, 2, 3, or 0 (see configuration investigated)
R-SRB		right solid rocket booster position 1, 2, 3, or 0 (see configuration investigated)

## INTRODUCTION

A 0.01-scale model Rockwell International integrated Space Shuttle vehicle (Configuration 3; figure 2a) was tested in the Arnold Engineering Development Center-von Karman Gas Dynamics Facility 40-inch Supersonic Wind Tunnel (Tunnel A). Test date was November 20, 1973.

Objective was to determine proximity force and moment data for the orbiter/ET and SRB with and without separation rockets firing for both single and dual booster runs. Data were obtained at points  $t=0$ ,  $t=1.25$ , and  $t=2$  seconds on the nominal SRB separation trajectory.

Data were obtained at Mach 4.5 at Reynolds numbers of 1.08, 1.50, 1.85, 2.23, 4.85, and 6.52 million per foot. Booster separation motor plenum pressures were set at tunnel static (zero thrust), 750, and 1500 psid. Angle of attack and angle of yaw for the Orbiter/ET ranges from -10 to +10 degrees. All angle of attack and angle of yaw runs were made separately.

#### TEST FACILITY DESCRIPTION

The AEDC-von Karman Facility (VKF) Tunnel A is a continuous, closed-circuit, variable density wind tunnel with an automatically driven, flexible-plate type nozzle and a 40- by 40-inch test section. The tunnel can be operated at Mach numbers from 1.5 to 6 at maximum stagnation pressures from 29 to 200 psia, respectively, and stagnation temperatures up to 750° R (M=6). Minimum operational pressures range from about one-tenth to one twentieth of the maximum at each Mach number. A description of the tunnel and airflow calibration information may be found in the Test Facilities Handbook.\*

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\*Test Facilities Handbook (Ninth Edition). "von Karman Gas Dynamics Facility, Vol. 3", Arnold Engineering Development Center, July 1971.

## CONFIGURATION INVESTIGATED

Test model was a 0.010-scale force model of the Rockwell International Space Shuttle vehicle (Configuration 3, Model 32-OTS).

External tank was rigidly attached to the orbiter. The orbiter was supported in the inverted position on the tunnel primary sector by the AEDC 4.00-Y-36-049 balance and 4.06-Z-050 sting.

The SRBs were supported by brackets attached to a modified sting adapter aft of the 4.06-Z-050 sting. Brackets located the boosters in the three test separation positions.

The right SRB was mounted on AEDC 0.625-inch diameter flow-through balance 4.00-Y-34-065. The left SRB was mounted on a dummy balance built to have the same deflection characteristics as the 4.00-Y-34-065 balance.

Orbiter and external tank were constructed of aluminum and had these components: wing, vertical tail, canopy, orbital maneuvering system (OMS) pods, body flap, simulated main engine nozzles, umbilical fairing, tank-to-orbiter attach structure, and tank protuberances.

External tank was attached to the orbiter using the forward attach strut and the LO<sub>2</sub> and LH<sub>2</sub> feed lines. Feed lines and feed line fairings were relocated inboard 20 inches full-scale from the position used on previous tests using Model 32-OTS (IA13). The new location matches the line drawings for these components. Figures 2b through 2e show the attach structure and tank protuberances.

The SRBs were constructed of steel and included the separation rocket fairing nozzles. High pressure air was piped into both SRBs to simulate

SRB separation motor plumes. Nozzle details are shown in figures 2f and 2g.

Both SRBs were capable of being mounted independently in each of the positions given in the following table.

<u>Position</u>	<u><math>\Delta X</math> (in.)</u>	<u><math>\Delta Y</math> (in.)</u>	<u><math>\Delta Z</math> (in.)</u>	<u><math>\Delta\alpha</math> (deg.)</u>	<u><math>\Delta\beta</math> (deg.)</u>
1	0	0	0	0	0
2	1.470	2.168	2.594	3.07	4.55
3	4.022	5.465	7.030	7.95	10.40

For these positions,  $\Delta X$ ,  $\Delta Y$ , and  $\Delta Z$  are displacements of the SRB nose in inches, model scale, from the mated SRB nose position.  $\Delta X$  is measured positive aft,  $\Delta Y$  is measured positive outboard, and  $\Delta Z$  is measured positive away from the orbiter.  $\Delta\alpha$  and  $\Delta\beta$  are defined as:  $\Delta\alpha = \alpha_{SRB} - \alpha_0/ET$ ,  $\Delta\beta = \beta_{SRB} - \beta_0/ET$ , where  $\alpha_{SRB}$ ,  $\beta_{SRB}$ ,  $\alpha_0/ET$ ,  $\beta_0/ET$ , are obtained using conventional aerodynamic definitions.

On the data, collation sheets and plots, the number and position of the boosters are noted with two digits under the parameter SRBPOS. The first digit refers to the position of the left SRB and the second digit refers to the position of the right SRB. Tested were the following combinations:

<u>SRBPOS</u>	<u>Left SRB</u>	<u>Right SRB</u>
1.100	Position 1	Position 1
2.100	Position 2	Position 1
2.200	Position 2	Position 2
1.200	Position 1	Position 2
3.200	Position 3	Position 2
3.300	Position 3	Position 3
2.300	Position 2	Position 3
0.300	Removed	Position 3
0.200	Removed	Position 2
0.100	Removed	Position 1
0.000	Removed	Removed

Lower surfaces of the elevon and body flap on the left side of the model were instrumented with three pressure taps located as follows:

<u>Tap No.</u>	<u>X</u> (inches from nose)	<u>Y</u> (inches from $\hat{B}$ )
7	12.26	1.40
8	12.29	2.00
12	13.33	1.00

Three transducers were mounted in the external tank to measure these pressures so that electrical leads instead of tubing would bridge the balance to the sting.

Nomenclature below were used to designate the configurations investigated.

O = B<sub>19</sub> C<sub>7</sub> E<sub>23</sub> F<sub>5</sub> M<sub>4</sub> N<sub>8</sub> N<sub>24</sub> R<sub>5</sub> V<sub>7</sub> W<sub>107</sub>

ET = T<sub>10</sub> AT<sub>6</sub> AT<sub>7</sub> AT<sub>11</sub> PT<sub>1</sub> PT<sub>2</sub> PT<sub>3</sub> FL<sub>1</sub> FL<sub>2</sub> FR<sub>5</sub>

SRB = S<sub>8</sub> N<sub>63</sub> N<sub>64</sub> PS<sub>4</sub>

Model configurations are defined as follows:

<u>Symbol</u>	<u>Component Description</u>	<u>Drawing</u>
AT <sub>6</sub>	Simulated attach structure (AT <sub>x</sub> )	
AT <sub>7</sub>	Left rear orbiter to external tank	VL72-000088D & 89
AT <sub>11</sub>	Right rear orbiter to external tank	VL72-000088D & 89
B <sub>19</sub>	Front orbiter to external tank	VL72-000088D & 89
C <sub>7</sub>	Body	VL70-00139B
E <sub>23</sub>	Canopy	VL70-00139B
F <sub>5</sub>	Elevons	VL70-00139B
	Body Flap	VL70-00139B
FL <sub>1</sub>	Feedlines (from external tank to orbiter)	
FL <sub>2</sub>	LO <sub>2</sub> feedlines	VL78-000050
FR <sub>5</sub>	LH <sub>2</sub> feedline	VL78-000050
M <sub>4</sub>	Umbilical door fairing	VL78-000050
N <sub>8</sub>	Orbital maneuvering system	VL70-00139B
N <sub>24</sub>	OMS nozzles	VL70-000140A
N <sub>63</sub>	Orbiter SSME nozzles	VL70-000140A
	Aft SRB separation rocket nozzle block	VL72-000088 & VL77-000036

<u>Symbol</u>	<u>Component Description</u>	<u>Drawing</u>
N <sub>64</sub>	Forward SRB separation rocket nozzle block	VL72-000088 & VL77-000036
PS <sub>4</sub>	Separation rocket fairing	VL72-000088 & VL77-000036
PT <sub>x</sub>	External tank protuberances (PT <sub>x</sub> , FL <sub>x</sub> , FR <sub>x</sub> )	
PT <sub>1</sub>	LO <sub>2</sub> vent line fairing	VL78-000031A
PT <sub>2</sub>	LO <sub>2</sub> feed line	VL78-000031A
PT <sub>3</sub>	LH <sub>2</sub> vent line	VL78-000031A
R <sub>5</sub>	Rudder	VL70-000140A
S <sub>8</sub>	Boosters (solid rocket)	VL72-000088 & VL77-000036
T <sub>10</sub>	External Tank	VL78-00041B
V <sub>7</sub>	Vertical Tail	VL70-000140A
W107	Wing	VL70-000140A

Complete dimensional data for the components are given in Table III.

All control surfaces were at their nominal positions during the test; i.e., no elevon, aileron, body flap, or rudder deflections. The umbilical fairing beneath the orbiter was in place for the test.

## DATA REDUCTION

Standard AEDC data reduction methods were used to compute six-component aerodynamic force and moment coefficients for the orbiter/external tank and four ( $C_N$ ,  $C_m$ ,  $C_y$ ,  $C_n$ ) aerodynamic force and moment coefficients for the right SRB. The following reference dimensions were applied:

Symbol	Description	Value (Model Scale)		Value (Full Scale)	
		Orbiter/ET Data	SRB Data	Orbiter/ET Data	SRB Data
S	reference area, ft <sup>2</sup>	0.269	0.269	2690.0	2690.0
b	reference span, in.	12.903	12.903	1290.3	1290.3
c̄	reference chord, in.	12.903	12.903	1290.3	1290.3
$\ell_b$	reference body length, used for $X_{cp}/\ell$ , in.	19.703	17.410	1970.3	1741.0
$X_{MRP}$	longitudinal location of moment reference point, inches from model nose (station, inches)	7.430 (10.520 $X_T$ )	9.670 (11.670 $X_B$ )	743.0 (1052.0 $X_T$ )	967.0 (1167.0 $X_B$ )
$Y_{MRP}$	lateral location of moment reference point, station, inches	0.0 $Y_T$	0.0 $Y_B$	0.0 $Y_T$	0.0 $Y_B$
$Z_{MRP}$	vertical location of moment reference point, distance above centerline, inches	0.470 (from ET $Q_L$ )	0.00 (from SRB $Q_L$ )	47.0 (from ET $Q_L$ )	0.0 (from SRB $Q_L$ )

Figure 2a shows the MRP locations.

Orbiter base and balance cavity pressures were recorded but were not used to apply any corrections. Three body flap pressures were also recorded. Pressure coefficients are in the appendix.

TEST : 1A57

TABLE I

DATE 8 NOV. 20, 1973

## TEST CONDITIONS

AEDC

Balances Used: (1) 4.00 - 4-36-049 (2) 4.00 - 4-34-065

	CAPACITY:		ACCURACY:	COEFFICIENT TOLERANCE:
	(1)	(2)		
NF	<u>200</u>	<u>125</u>	<u><math>\pm\%</math> of Full Scale</u>	
SF	<u>200</u>	<u>125</u>		
AF	<u>50</u>	*		
PM	<u>510</u>	<u>451</u>		
RM	<u>100</u>	*		
YM	<u>310</u>	<u>451</u>		

\* 4-component balance, no AF or RM

COMMENTS: Balance (1) mounted in orbiter to record O/ET forces. Balance (2) mounted in right SRB.

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TABLE II.  
TEST : AEDC YA 422 (IA-57) DATA SET RUN NUMBER COLLECTION SUMMARY

TEST : AEDC YA-422 (IA-57) DATA SET RUN NUMBER COLLATION SUMMARY										TEST RUN NUMBER			
DATA SET IDEN - EEP	CONFIGURATION	SCD.	PARAMETERS/VALUES							SEARCH NUMBER			
			$\alpha$	$\beta$	L-SP3	R-SP3	P <sub>T1</sub>	P <sub>T2</sub>	RNL	NET E-NS	NET E-NS		
RTL001	ISOLATED φ/ET	A C	-	-	29	-	1.76			45			
02		D B	-	-	29	-	1.76			85			
03		A O	-	-	80	-	4.76			86			
04		O B	-	-	80	-	4.76			89			
05		A O	-	-	110	-	6.75			90			
06		C B	-	-	110	-	6.75			97			
07	φ/ET + RIGHT SREB	A O	0	1	23.5	1500	1.4			74			
08	φ Pos 1.	O S	0	1	23.5	1500	1.4			75			
09		A C	0	1	29	0	1.76			69			
10		O B	0	1	0	0				70			
11		A C	0	1	750	0				72			
12		O B	0	1	750	0				71			
13		A C	0	1	1500	0				73			
14		O B	0	1	1500	0				74			
15	φ/ET + RIGHT SREB	4 O	0	2	23.5	1500	1.4			69			
16	φ Pos 2	0 G	0	2	23.5	1500	1.4			67			
17		A O	0	2	29	0	1.76			61			
18		O B	0	2	29	0	1.76			62			
19	TEL N	137	137N	25PCL	3INTL	37	43	45	EE	EE	EE	EE	EE

## TEST : AEDC VNA 422 (L1537)

TABLE II. Continued  
DATA SET/RUN NUMBER COLLATION SUMMARY

DATA SET IDENTIFIER	CONFIGURATION	SCHED.	PARAMETERS/VALUES				MACH NUMBERS $M_C = 4.5$
			L-29-R-50	PA	PA/RN/L	SCHEMES	
RTL019	Φ/ET + Right SRF	A 0	0	2	29 150 1.76		64
20	② Pos 2.	0 B	0	2	150		63
21		—	4 0	0	2	1500	65
22		—	0 B	0	2	1500	66
23	Φ/ET + Right SRF	A 0	0	3	23.9 1500 1.4		84
24	② Pos 3.	0 B	0	3	23.5 1500 1.4		83
25		—	A 0	0	3	29 0 1.76	77
26		—	0 B	0	3	0	78
27		—	A 0	0	3	750	80
28		—	0 B	0	3	750	79
29		—	A 0	0	3	1500	81
30		—	0 B	0	3	1500	82
31	Φ/ET + Beta SRF	A 0	1	1	17 1500 1.01		15
32	② Pos 1	A 0	1	1	23.9 1500 1.4		14
33		—	C 0	1	1	23.5 1500 1.4	13
34		—	A 0	1	1	29 0 1.76	5
35		—	0 B	1	1	29 0 1.76	6
S	LN	TEL0	37	1500	37	43	55
R	LN	TEL0	2500	37	43	45	55
C	LN	TEL0	1500	37	43	45	55
COEFFICIENTS							
Φ OR β							
SCHEDULES							

REPLICATED PAGE IS 2

TABLE II. Continued

TEST : AEOC VARY2 (IN57)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE : 11/29/73

DATA SET IDEN. # EEF	CONFIG. PARTITION	SCHD.	PARAMETERS/VALUES					SCHD. # 345	SCHD. # 451	SCHD. # 516
			$\alpha$	$\beta$	L-SQB-R-SEC	P10	P71			
41	Q/ET + BOTH SCR B	A	0	1	29	750	1.76		10	
42	Q/PSS 1	B	0	1	1	750			7	
43	Q/PSS 2	A	0	1	1	1500			9	
44		B	0	1	1	1500			8	
45		A	0	1	110	0	6.75		3	
46		B	0	1	110	0	6.75		4	
47	Q/ET + BOTH SCR B	A	0	2	17	1500	1.01		25	
48		A	0	2	2	23.5	1500	1.4	34	
49		B	0	2	2	23.5	1500	1.4	33	
50		A	0	2	2	29	0	1.76		31
51		B	0	2	2	29	0		32	
52		A	0	2	2	750			30	
53		B	0	2	2	750			29	
54		A	0	2	2	1500			26	
55		B	0	2	2	1500			25	
56		A	0	2	2	35	1500	2.08	23	
57		B	0	2	2	35	1500	2.08	24	
58									6	
59									75	
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TEST: NEDC VA 422 (E151)

TABLE II. Continued  
RUN NUMBER COLLECTION SUMMARY

DATE: 11/29/73

TEST : AEDC VA 422 (EA57) DATA SET / RUN NUMBER COLLATION SUMMARY										TEST RUN NUMBER				
DATA SET IDENTIFIER	CONFIGURATION	SCHD.	PARAMETERS/VALUES							MACH. NUMBERS		$C_{L0}$	$C_{L1}$	
			$\alpha$	$B$	$L_{TURB}$	$R_{SR}$	$P_{T0}$	$P_{T1}$	$R_{H0}$	$R_{H1}$	$C_{L0}$	$C_{L1}$		
RTL 053	$\phi/ET + Both SRs$	A 0	3	3	17	1500	1.01				56		56	
54	$\phi/Both SRs$	A 0	3	3	23.5	1500	1.4				55		55	
55		0 B	3	3	23.5	1500	1.4				54		54	
56		A 0	3	3	29	0	1.76				52		52	
57		0 B	3	3	3	0					53		53	
58		A 0	3	3	750						51		51	
59		0 B	3	3	750						50		50	
60		A 0	3	3	1500						47		47	
61		0 B	3	3	1500						46		46	
62		A 0	3	3	35	1500	2.08				44		44	
63		0 B	3	3	35	1500	2.08				45		45	
64	$\phi/ET + Both SRs$	A 0	1	2	29	0	1.76				20		20	
65	$\phi/Both SRs$	0 B	1	2	1	0					21		21	
66		A 0	1	2	750						16		16	
67		0 B	1	2	750						17		17	
68		A 0	1	2	1500						19		19	
69		0 B	1	2	1500						18		18	

TEST:AEDC VA 422 (IA57)

TABLE II. Continued

TABLE II. Continued

TABLE III. MODEL DIMENSIONAL DATA

MODEL COMPONENT: ATTACH STRUCTURE - AT<sub>6</sub>

GENERAL DESCRIPTION: Right rear, Orbiter to External Tank

MODEL SCALE: 0.010

DRAWING NO.: VL72-000088B + VL72-000089 NOTE: Use first drawing for location and second drawing for detail of struts

## DIMENSIONS:

FULL SCALEMODEL SCALE

## First Strut

Diameter In. (Approx.) 1 0.010

Fwd. Location, In. (Attach to Orbiter)

$x_o$	<u>1307</u>	<u>13.07</u>
$x_s$	<u>2058</u>	<u>20.58</u>

App Approximate Aft Location, In. (Attach to Orbiter)

$x_o$	<u>1107</u>	<u>11.07</u>
$x_s$	<u>1858</u>	<u>18.58</u>

(NOTE: This strut is the mirror image of Strut AT<sub>7</sub>)

## Second Strut

Diameter, In. (Approx.) 1 0.010

Location, In.

$x_o$	<u>1307</u>	<u>13.07</u>
$x_s$	<u>2058</u>	<u>20.58</u>

(NOTE: This is a cross-brace strut)

TABLE III. Continued

MODEL COMPONENT: ATTACH STRUCTURE - AT

GENERAL DESCRIPTION: Left rear, Orbiter to External Tank

MODEL SCALE: 0.010

DRAWING NO.: VL72-000088B + VL72-000089 NOTE: Use first drawing for location and second drawing for detail of struts

## DIMENSIONS:

## FULL SCALE

## MODEL SCALE

## FORWARD ATTACH POINTS

## Orbiter to Tank

Number of Struts	<u>1</u>	<u>1</u>
Diameter - In. (Approx.)	<u>1</u>	<u>0.010</u>
Location - In.		
$X_O$	<u>1307</u>	<u>13.07</u>
$X_T$	<u>2058</u>	<u>20.58</u>

## Orbiter to SRB

Number of Struts	<u>1</u>	<u>1</u>
Diameter - In.	<u>1</u>	<u>0.010</u>
Location - In.		

 $X_O$  $X_T$ 

## Tank to SRB

Number of Struts	<u>1</u>	<u>1</u>
Diameter - In.	<u>1</u>	<u>0.010</u>
Location - In.		

 $X_T$  $X_S$ 

## AFT ATTACH POINTS

## Orbiter to Tank

Number of Struts	<u>1</u>	<u>1</u>
Diameter - In. (Approx.)	<u>1</u>	<u>0.010</u>
Location - In. (Approx.)		
$X_O$	<u>1107</u>	<u>11.07</u>
$X_T$	<u>1858</u>	<u>18.58</u>

## Orbiter to SRB

Number of Struts	<u>1</u>	<u>1</u>
Diameter - In.	<u>1</u>	<u>0.010</u>
Location - In.		
$X_O$	<u>1</u>	<u>1</u>
$X_S$	<u>1</u>	<u>1</u>

## Tank to SRB

Number of Struts	<u>1</u>	<u>1</u>
Diameter - In.	<u>1</u>	<u>0.010</u>
Location - In.		
$X_T$	<u>1</u>	<u>1</u>
$X_S$	<u>1</u>	<u>1</u>

TABLE III. Continued

MODEL COMPONENT: ATTACH STRUCTURE - AT<sub>11</sub>

GENERAL DESCRIPTION: Front, Orbiter to External Tank

MODEL SCALE: \_\_\_\_\_

DIMENSIONS:

Number of Struts

FULL SCALEMODEL SCALE22

Width of each strut

12-1/20.125

Length of each strut

250.250

Location:

 $x_o$ 3913.91 $x_T$ 1132.011.32

TABLE III. Continued  
MODEL DIMENSIONAL DATA

MODEL COMPONENT: BODY - B<sub>19</sub>

GENERAL DESCRIPTION: Fuselage, Configuration 3, per Rockwell Lines

Drawing VL70-000139B

NOTE: Identical to B17 except forebody

MODEL SCALE: .010

DRAWING NUMBER: VL70-000139B

DIMENSIONS:

	FULL SCALE	MODEL SCALE
Length - In.	1290.3	12.903
Max. Width - In.	267.6	2.676
Max. Depth - In.	244.5	2.445
Fineness Ratio	4.82175	4.82175
Area - Ft <sup>2</sup>		
Max. Cross-Sectional	386.67	0.03867
Planform		
Wetted		
Base		

TABLE III. Continued

MODEL COMPONENT: CANOPY - C<sub>7</sub>

GENERAL DESCRIPTION: Configuration 3 per Rockwell Lines VL70-000139

MODEL SCALE: 0.010

DRAWING NUMBER: VL70-000139

## DIMENSIONS:

FULL SCALE    MODEL SCALELength ( $X_0 = 433$  to  $X_0 = 670$ ) in. FS    237    2.370Max. Width                                        Max. Depth ( $Z_0 = \dots$  to  $Z_0 = .501$ ) In. FS                                        Fineness Ratio                                        Area                                        Max. Cross-Sectional                                        Planform                                        Wetted                                        Base                                        REPRODUCIBILITY OF THE  
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TABLE III. Continued

MODEL COMPONENT: ELEVON - E<sub>23</sub>

GENERAL DESCRIPTION: Configuration 3 per W107 Rockwell Lines Drawing

VL70-000139B data for (1) of (2) sides

MODEL SCALE: 0.010

DRAWING NUMBER: VL70-000139B

## DIMENSIONS:

	FULL SCALE	MODEL SCALE
Area - ft <sup>2</sup>	205.52	0.02055
Span (equivalent) - in.	353.34	3.533
Inb'd equivalent chord	114.78	1.148
Outb'd equivalent chord	55.00	0.550
Ratio movable surface chord/total surface chord		
At inb'd equiv. chord	0.208	0.208
At outb'd equiv. chord	0.400	0.400
Sweep-back angles, degrees		
Leading edge	0.00	0.00
Trailing Edge	-10.24	-10.24
Hingeline	0.00	0.00
Area Moment (Normal to Hingeline) - ft <sup>3</sup> (Product of Area Moment)	1518.07	0.001518

TABLE III. Continued.

MODEL COMPONENT: BODY FLAP - F<sub>5</sub>

GENERAL DESCRIPTION: Body flap for fuselage B19

MODEL SCALE: 0.015

DRAWING NUMBER: VL70-000139

## DIMENSIONS:

Length - In.

FULL SCALE    MODEL SCALE84.70    0.8470

Max. Width - In.

267.6    2.676

Max. Depth - In.

Fineness Ratio

Area - ft<sup>2</sup>

Max. cross-sectional

142.5195    0.01425

Wetted

Base

38.0958    0.00380958THE INFORMATION ON THE  
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TABLE III. Continued

MODEL COMPONENT: FLOWLINE FL<sub>1</sub>

GENERAL DESCRIPTION: LOX feedline between EP and orbiter.

MODEL SCALE: 0.010

DRAWING NO.: VI/8-000050

## DIMENSIONS:

	FULL SCALE	MODEL SCALE
Centerline at X <sub>p</sub>	2063.5	.10635
Z <sub>p</sub>	+ 70.0	+ 0.70
X <sub>o</sub>	1440.6	.14406
Y <sub>o</sub>	+ 70	+ 0.70
Diameter	18.5	0.185

TABLE III. Continued

MODEL COMPONENT: FEEDLINE - FL<sub>2</sub>GENERAL DESCRIPTION: LH<sub>2</sub> feedline between ET and Orbiter.

MODEL SCALE: 0.010

DRAWING NO.: VL78-000050

## DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Centerline at: X <sub>T</sub>	<u>2063.5</u>	<u>20.635</u>
Y <sub>T</sub>	<u>- 70.0</u>	<u>- 0.700</u>
X <sub>O</sub>	<u>1330.5</u>	<u>13.305</u>
Y <sub>O</sub>	<u>- 70.0</u>	<u>- 0.700</u>
Diameter	<u>18.5</u>	<u>0.185</u>

TABLE III. Continued

MODEL, COMPONENT: ORBITER UMBILICAL FAIRING - FR5

GENERAL DESCRIPTION: Fairing around orbiter umbilical assembly on orbiter lower surface rear fuselage trailing edge.

MODEL SCALE: 0.010

DRAWING NO.: VL7B-000050

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Height (from orbiter surface, In.)		
Leading edge	5.0	0.050
Trailing edge	23.0	0.230
Maximum	26.0	0.260
Length, In.	154.0	1.540
Max. width, In.	235.0	2.350

TABLE III. Continued

MODEL COMPONENT: OMS Pod - M<sub>4</sub>

GENERAL DESCRIPTION: Configuration 3 per Rockwell Lines VL70-000139

NOTE: M<sub>4</sub> identical to M<sub>3</sub> except intersection to fuselage.

MODEL SCALE: 0.010

DRAWING NUMBER: VL70-000139

## DIMENSIONS:

	FULL SCALE	MODEL SCALE
Length - In.	346.0	3.460
Max. Width - In.	108.0	1.080
Max. Depth - In.	113.0	1.130
Fineness Ratio		
Area - Ft <sup>2</sup>		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. Continued

MODEL COMPONENT: NOZZLE - NO

GENERAL DESCRIPTION: Rule CWT Nozzle of Configuration 2A per Rockwell Lines  
 VL70-008306 and VL70-000039"B". Intersection of nozzle exit plane and  
 nozzle centerline at  $X_0 = 1570.75$ ,  $Y_0 = 499.25$ ,  $Z_0 = 507.25$

MODEL SCALE = 0.010

DRAWING NO. VL70-008306, VL70-000039"B", SS-A00092

DIMENSIONS	FULL SCALE	MODEL SCALE
Mach No.		
Length ~ in.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter~in.		
Exit	50.00	0.500
Throat	N/A	N/A
Inlet	28.00	0.280
Area ~ ft. <sup>2</sup> ./Nozzle		
Exit	13.635	0.00136
Throat		
Gimbal Point (station)~in.		
X	1518.0	15.180
Y	+88.0	0.880
Z	492.0	4.920
Null Position~deg.		
Pitch	15°49'	15°49'
Yaw (Outb'd)	+12°17'	+12°17'

TABLE III. Continued

MODEL COMPONENT: M3 NOZZLES - II.24

GENERAL DESCRIPTION: Configuration 3A MF

MODEL SCALE = 0.010

DRAWING NO. VL70-000140A, VL70-005030A

<u>DIMENSIONS</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Mach No.		
Length ~in.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter ~in.		
Exit	<u>91.000</u>	<u>0.910</u>
Throat		
Inlet		
Area ~ft <sup>2</sup> . /Nozzle		
Exit	<u>45.16585</u>	<u>0.00452</u>
Throat		
Gimbal Point (station) ~in.		
Upper Nozzle		
X	<u>144.5</u>	<u>14.450</u>
Y	<u>0</u>	<u>0</u>
Z	<u>44.3</u>	<u>4.430</u>
Lower Nozzles		
X	<u>1468.16996</u>	<u>14.68170</u>
Y	<u>-53.00000</u>	<u>-0.530</u>
Z	<u>342.63988</u>	<u>3.42640</u>
Null Position ~deg.		
Upper Nozzle		
Pitch	<u>16°</u>	<u>16°</u>
Yaw	<u>0°</u>	<u>0°</u>
Lower Nozzles		
Pitch	<u>10°</u>	<u>10°</u>
Yaw (outb'd)	<u>3.5°</u>	<u>3.5°</u>

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TABLE III. Continued

MODEL COMPONENT: SRB AFT SEPARATION NOZZLE BLOCK - N63

GENERAL DESCRIPTION: Aft separation nozzles for configuration 3 solid rocket booster.

SCALE MODEL: 0.010

MODEL DRAWING: SS-A01184

## DIMENSIONS:

Diameter - In.

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Exit	<u>9.45</u>	<u>0.0945</u>
Throat	<u>6.81</u>	<u>0.0681</u>
Inlet	<u>6.81</u>	<u>0.0681</u>

Area - ft<sup>2</sup>

Exit	<u>0.4871</u>	<u>0.00004871</u>
Throat	<u>0.2529</u>	<u>0.00002529</u>

Design Exit Mach No.

No. of Nozzles

Center of rotation of thrust centerline X<sub>s</sub> 1850 18.50Nozzles mounted on SRB aft skirt, canted 20° aft,  
away from O/ET

TABLE III. Continued

MODEL COMPONENT: SRB FORWARD SEPARATION NOZZLE BLOCK - N64

GENERAL DESCRIPTION: Separation nozzles for configuration 3 solid rocket booster.

MODEL SCALE: 0.010

Model Drawing No. SS-A01184

DIMENSIONS:

Diameter - In.

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Exit	<u>9.45</u>	<u>0.0945</u>
Throat	<u>6.81</u>	<u>0.0681</u>
Inlet	<u>6.81</u>	<u>0.0681</u>

Area - Ft<sup>2</sup>/Nozzle

Exit	<u>0.4871</u>	<u>0.00004871</u>
Throat	<u>0.2529</u>	<u>0.00002529</u>

Design Exit Mach No.

No. of Nozzles	<u>4 (in 2 blocks)</u>
----------------	------------------------

Center of rotation of thrust centerline

450	<u>4.50</u>
-----	-------------

Nozzles canted 20 deg. forward, away from O/ET

TABLE III. Continued

MODEL COMPONENT: SEPARATION ROCKET NOZZLE FAIRING - PS<sub>4</sub>

GENERAL DESCRIPTION: Fairing enclosing 4 aft separation rocket nozzles located on SRB base shroud.

MODEL SCALE: 0.010

DRAWING NO.: VL77-000036

<u>DIMENSIONS:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge station, In. X <sub>B</sub>	1724.5	17.245
Trailing edge station, In. X <sub>B</sub>	1852.0	18.520
Max. Width, In.	30.0	0.300
Max. Height, In.	20.0	0.200

TABLE III. Continued

MODEL COMPONENT: ET PROTUBERANCE - PT<sub>1</sub>GENERAL DESCRIPTION: LOX vent line fairing on Tank (T<sub>12</sub>) Nose

MODEL SCALE: 0.010

DRAWING: VL78-000031A

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at: X <sub>T</sub>	<u>321.00</u>	<u>3.210</u>
Y <sub>T</sub>	<u>0.0</u>	<u>0.</u>
Trailing edge at: X <sub>T</sub>	<u>947.00</u>	<u>9.470</u>
Y <sub>T</sub>	<u>470.0</u>	<u>4.700</u>
Centerline of vent line radially located at		
Height	_____	_____
Width	_____	_____

TABLE III. Continued

MODEL COMPONENT: ET PROTUBERANCE - PT<sub>2</sub>

GENERAL DESCRIPTION: LOX feedlines on Vehicle 4 tank secured to tank by brackets with 30-inch spacing (total of 22 brackets)

MODEL SCALE: 0.010

DRAWING NO.: VL78-000031A

## DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at: X <sub>T</sub>	<u>947.00</u>	<u>9.470</u>
Y <sub>T</sub>	<u>- 70.00</u>	<u>- 0.700</u>
Trailing edge at: X <sub>T</sub>	<u>1330.00</u>	<u>13.300</u>
Y <sub>T</sub>	<u>- 70.00</u>	<u>- 0.700</u>
Bracket spacing from X <sub>T</sub> = 997	<u>50.00</u>	<u>0.500</u>
Centerline of LOX feedline located radially at Ø	<u>23.5°</u>	<u>23.5°</u>

TABLE III. Continued

MODEL COMPONENT: ET PROTUBERANCE ~ PT<sub>3</sub>GENERAL DESCRIPTION: LH<sub>2</sub> ventline on Vehicle 4 tank secured to tank by  
brackets with 30-inch spacing (total of 22 brackets)

MODEL SCALE: 0.010

DRAWING NO.: VL78-000031A

## DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Leading edge at: X <sub>T</sub>	<u>947.00</u>	<u>9.470</u>
Y <sub>T</sub>	<u>- 70.00</u>	<u>- 0.700</u>
Trailing edge at: X <sub>T</sub>	<u>1330.00</u>	<u>13.300</u>
Y <sub>T</sub>	<u>- 70.00</u>	<u>- 0.700</u>
Bracket spacing from X <sub>T</sub> = 997	<u>50.00</u>	<u>0.500</u>
Centerline of LH <sub>2</sub> feedline radially located at $\phi$ =		<u>- 34.5°</u>

TABLE III. Continued

MODEL COMPONENT: Rudder - RS

GENERAL DESCRIPTION: 2A, 3 and 3A Configuration per Rockwell Lines

VL70-000095

Model Scale = 0.010

DRAWING NUMBER:

VL70-000095

DIMENSIONS:Area - FT<sup>2</sup>FULL-SCALEMODEL SCALE

Span (equivalent) - IN.

106.380.0106

Inb'd equivalent chord

201.02.010

Outb'd equivalent chord

91.5850.91650.8330.508Ratio movable surface chord/  
total surface chord

At Inb'd equiv. chord

0.4000.400

At Outb'd equiv. chord

0.4000.400

Sweep Back Angles, degrees

Leading Edge

34.8334.83

Tailing Edge

26.2526.25

Hingeline

34.8334.83Area Moment (Normal to hinge line)- FT<sup>3</sup>526.130.002526

Product of Area and Mean Chord

TABLE III. Continued

MODEL COMPONENT: BOOSTER SOLID ROCKET MOTOR - SB

GENERAL DESCRIPTION: Booster Solid Rocket, 3 Configuration, Body c.c.Revolution, Data for (1) or (2) sides, per Rockwell Lines VL77-000036  
and VL72-000028

Model Scale = 0.010

DRAWING NUMBER	VL72-000088 VL77-000036	MODEL DRAWING: SS-A00113
----------------	----------------------------	--------------------------

DIMENSION:	FULL SCALE	MODEL SCALE
Length (Includes Nozzle) - IN.	1741.0	17.410
Max Width (Tank Dia.) - IN.	142.0	1.420
Max Depth (Aft Shroud) - IN.	205.0	2.050
Fineness Ratio	8.49268	8.49268
Area - FT <sup>2</sup>		
Max Cross-Sectional	229.21	0.02292
Planform		
Wetted		
Base		
WP of BSRM Centerline ( $Z_T$ ) - IN.	400.0	
FS of BSRM Nose ( $X_T$ ) - IN.	200.0	

TABLE III. Continued

MODEL COMPONENT: EXTERNAL TANK - T<sub>10</sub>

GENERAL DESCRIPTION: External Oxygen-Hydrogen Tank, 3 Configuration, per

Rockwell Line Drawing VL78-000041 and VL72-000088

MODEL SCALE: 0.010

DRAWING NUMBER: VL72-000088  
VL78-000041

DIMENSIONS:	FULL SCALE	MODEL SCALE
Length - In. (Nose @ X <sub>T</sub> = 309)	1865	18.65
Max. Width (Dia.) - In.	324	3.24
Max. Depth	--	
Fineness Ratio	5.75617	5.75617
Area - Ft <sup>2</sup>		
Max. Cross-Sectional	572.555	0.0573
Planform		
Wetted		
Base		
W.P. of Tank Centerline (X <sub>T</sub> ) In.	400.0	4.00

TABLE III. Continued

MODEL COMPONENT: VERTICAL - VGENERAL DESCRIPTION: Centerline vertical tail, double wedge airfoil with rounded leading edge.NOTE: Same as V<sub>5</sub>, but with manipulator housing removed.MODEL SCALE: 0.010DRAWING NUMBER: VT70-000130DIMENSIONS:TOTAL DATA

		<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area (Theo)	Ft <sup>2</sup>	125.92	0.0125
Planform			
Span (Theo)	In	315.72	3.157
Aspect Ratio		1.675	1.675
Rate of Taper		0.507	0.507
Taper Ratio		0.404	0.404
Sweep Back Angles, degrees			
Leading Edge		45.000	45.000
Trailing Edge		26.249	26.249
0.25 Element Line		41.130	41.130
Chords:			
Root (Theo) WP		268.50	2.685
Tip (Theo) WP		108.47	1.085
MAC		199.81	1.998
Fus. Sta. of .25 MAC		1463.50	14.635
W. P. of .25 MAC		635.522	6.355
B. L. of .25 MAC		0.00	0.00
Airfoil Section			
Leading Wedge Angle	Deg	10.000	10.000
Trailing Wedge Angle	Deg	14.920	14.920
Leading Edge Radius		2.0	0.020
Void Area		13.17	0.131
Blanketed Area		0.00	0.00

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TABLE III. Continued

MODEL COMPONENT: WING-W 107

GENERAL DESCRIPTION: Configuration 3 For Rockwell Line V170-0001300

NOTES: Same as W103, except cuff, airfoil and incidence angle.

Model Scale = 0.010

TEST NO.

DIG. NO. V170-0001300

DIMENSIONS:

FULL-SCALE MODEL SCALE

TOTAL DATAArea (Theo.)  $\text{ft}^2$ 

2690.00 0.2600

Planform

936.48 0.0908

Span (Theo) In.

2.766 2.003

Aspect Ratio

1.177 1.177

Rate of Taper

0.240 0.240

Taper Ratio

3.500 4.672

Dihedral Angle, degrees (0 TE of Elevon)

0.500 0.500

Incidence Angle, degrees

13.000 13.000

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

15.000 15.000

Trailing Edge

-10.24 -10.24

0.25 Element Line

35.209 35.209

## Chords:

Root (Theo) B.P.O.O.

689.24 6.802

Tip, (Theo) B.P.

137.85 1.378

MAC

171.81 1.718

Fus. Sta. of .25 MAC

1136.89 11.3689

W.P. of .25 MAC

299.20 2.992

B.L. of .25 MAC

182.13 1.8213

EXPOSED DATAArea (Theo)  $\text{ft}^2$ 

1752.29 0.1752

Span, (Theo) In. BP108

720.68 7.2068

Aspect Ratio

2.058 2.058

Taper Ratio

0.2451 0.2451

## Chords

Root BP108

562.40 5.6240

Tip  $\frac{b}{2}$ 

137.85 1.3785

MAC

393.03 3.9303

Fus. Sta. of .25 MAC

1185.31 11.8531

W.P. of .25 MAC

300.20 3.002

B.L. of .25 MAC

251.76 2.518

Airfoil Section (Rockwell Mod NASA)

XXXX=64

Root  $\frac{b}{2}$ 

0.10 0.10

Tip  $\frac{b}{2}$ 

0.12 0.12

Data for (1) or (2) Sides

Leading Edge Cuff  $\text{ft}^2$ 

116.131 0.0118

Planform Area  $\text{ft}^2$ 

116.131 0.0118

Leading Edge Intersects Fus M. L. 0 Sta

-5.00 -5.00

Leading Edge Intersects Wing @ Sta

10.821 10.821

- Notes:**
- Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
  - For clarity, origins of wind and stability axes have been displaced from the center of gravity

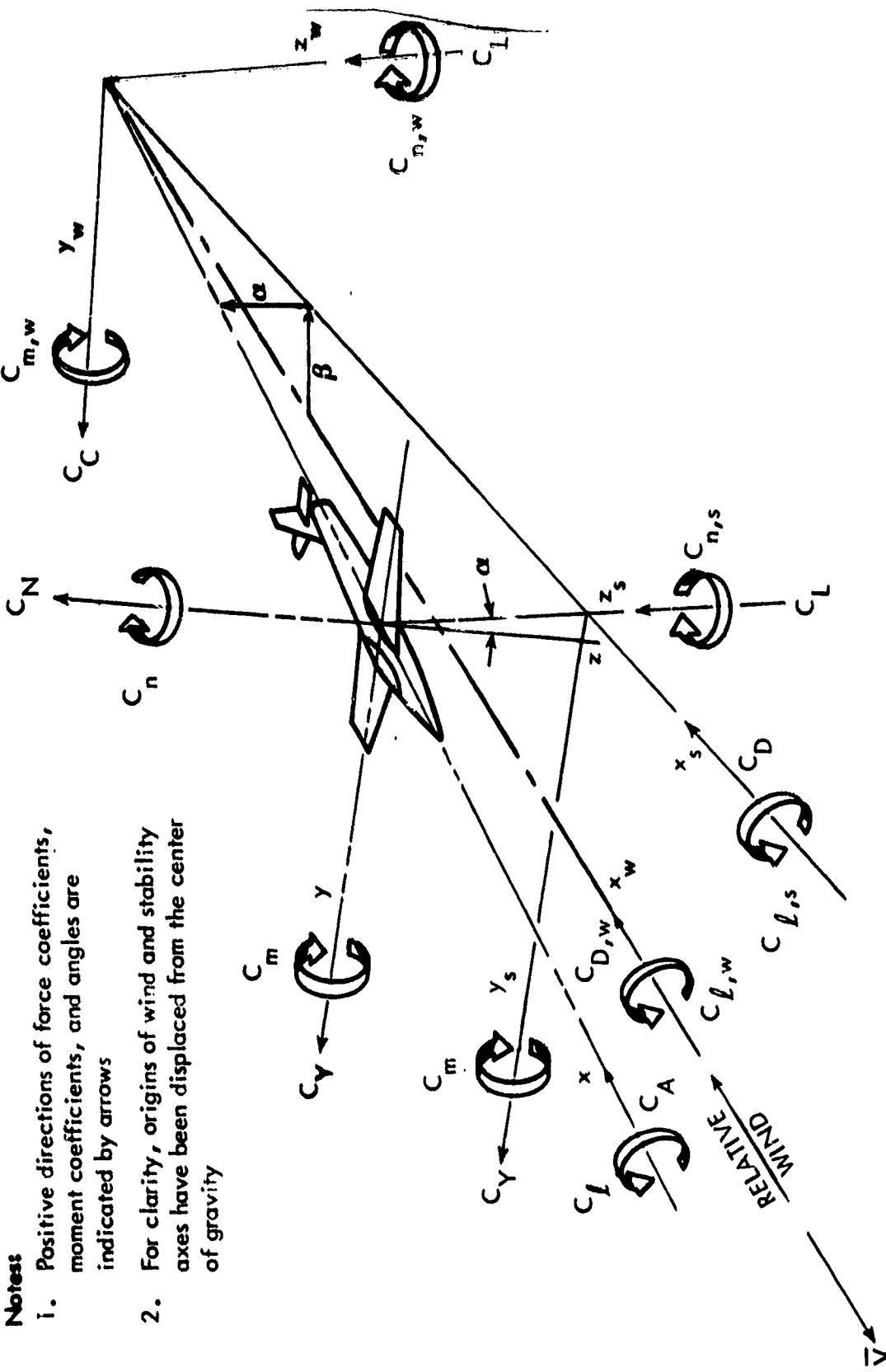
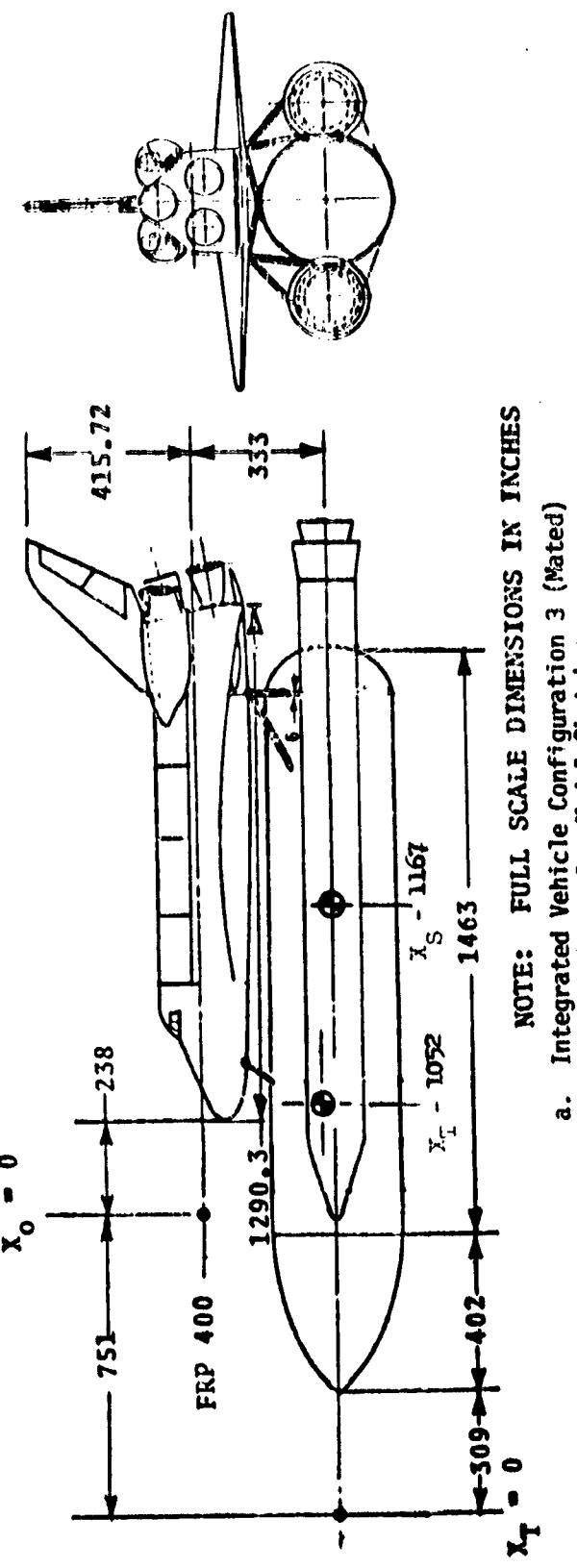
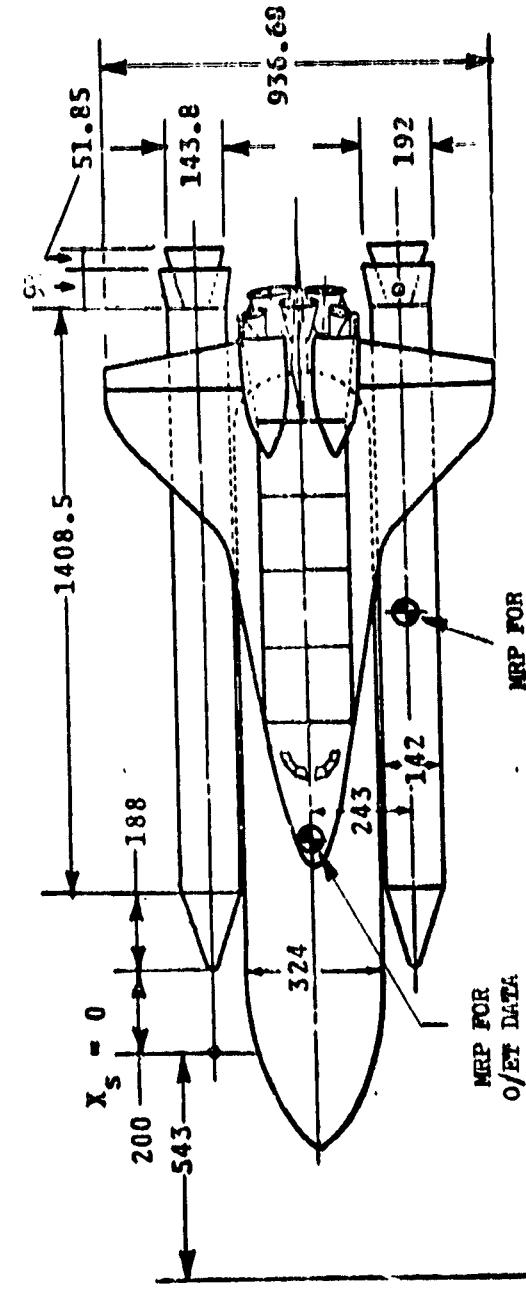
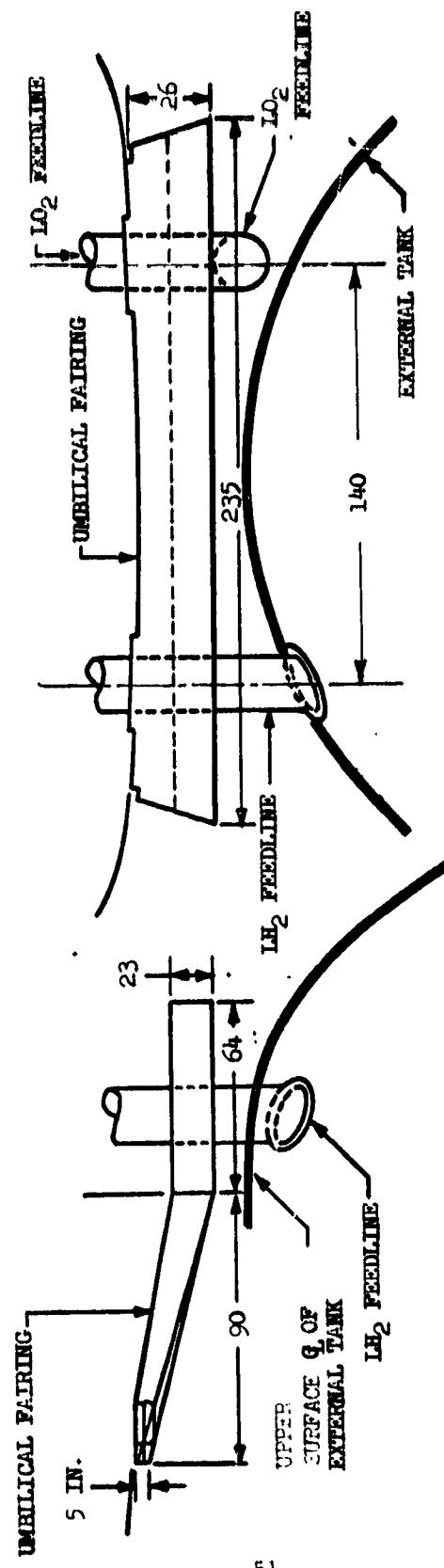


Figure 1. Axis Systems



NOTE: FULL SCALE DIMENSIONS IN INCHES

- a. Integrated Vehicle Configuration 3 (Mated)  
Figure 2. Model Sketches

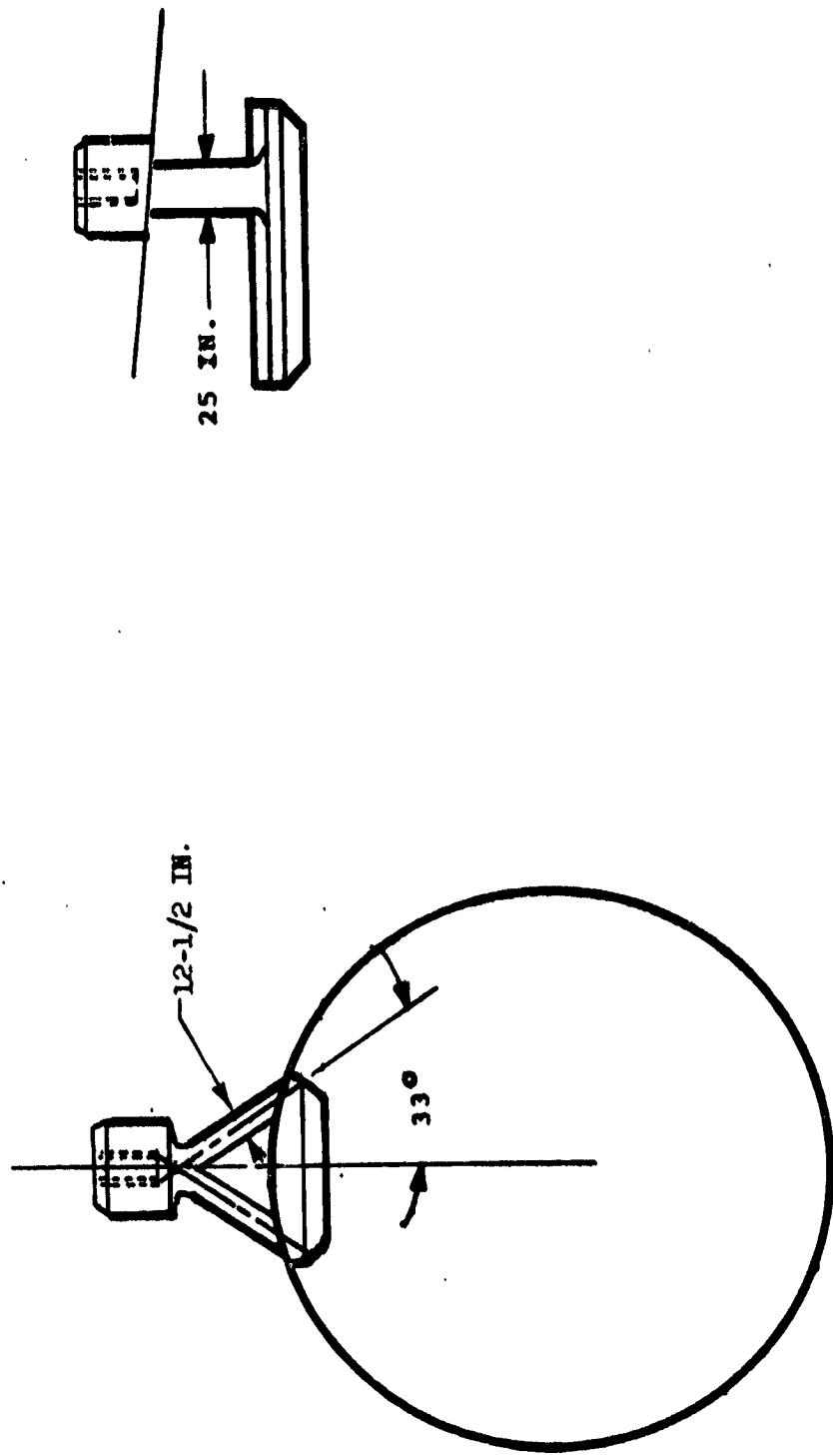


51

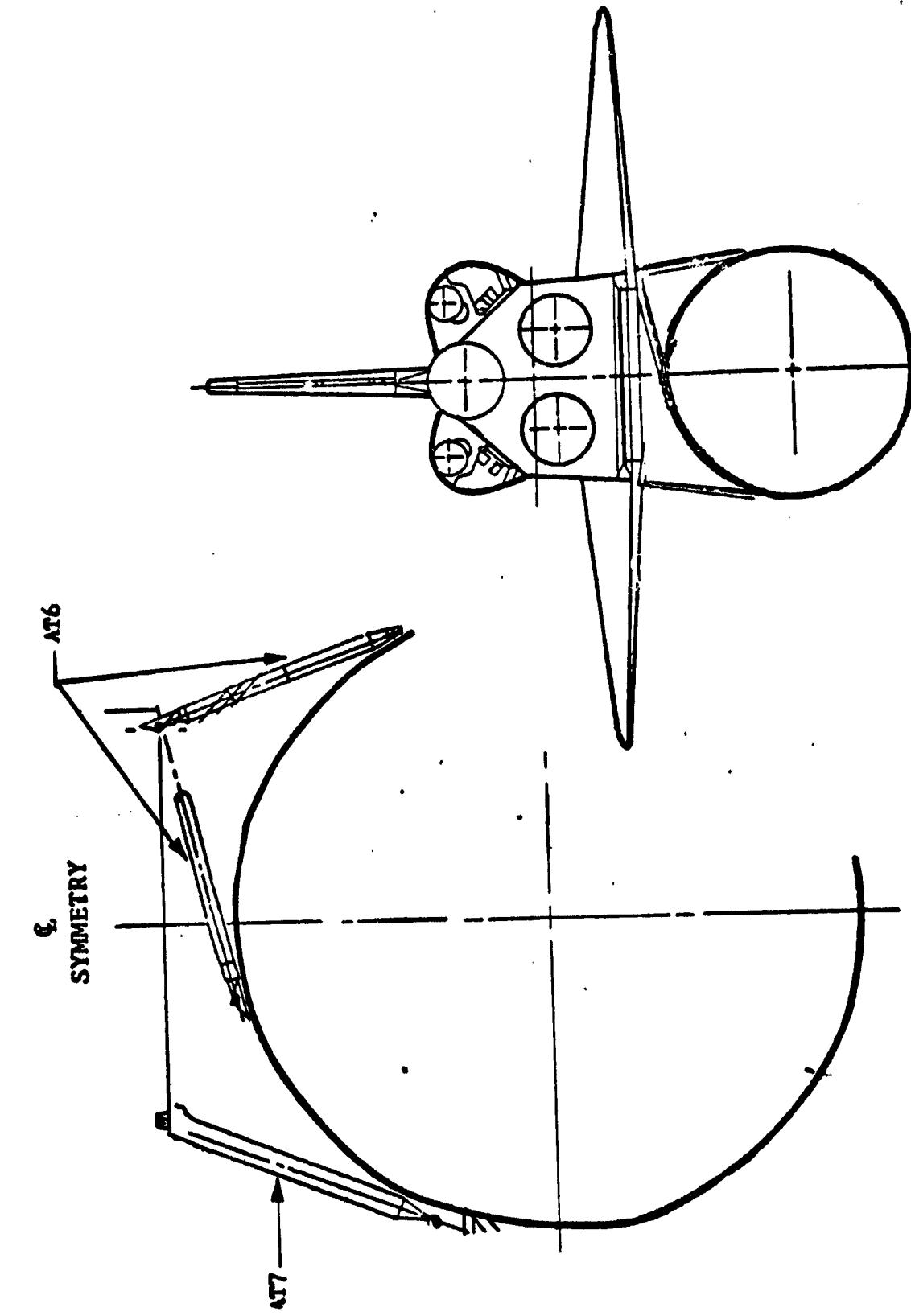
NOTE: ALL DIMENSIONS ARE APPROXIMATE  
AND IN INCHES

b. Orbiter Umbilical Fairing (FR5) and  $LO_2$  (FL1) and  $LH_2$  (FL2) Feedlines  
Figure 2. Continued

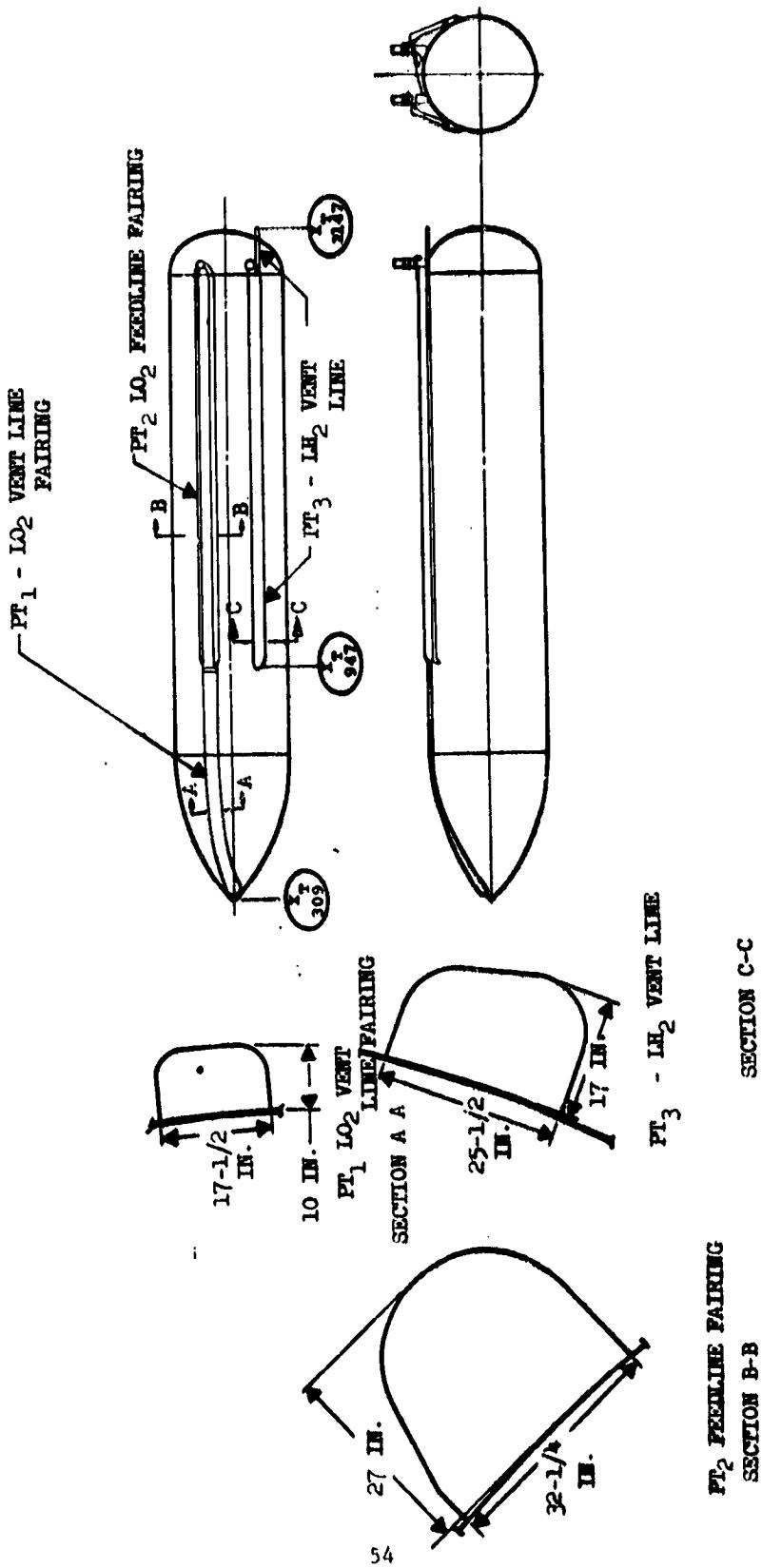
c. Forward Attachment of the External Tank to the Orbiter (AT<sub>11</sub>)  
Figure 2. Continued



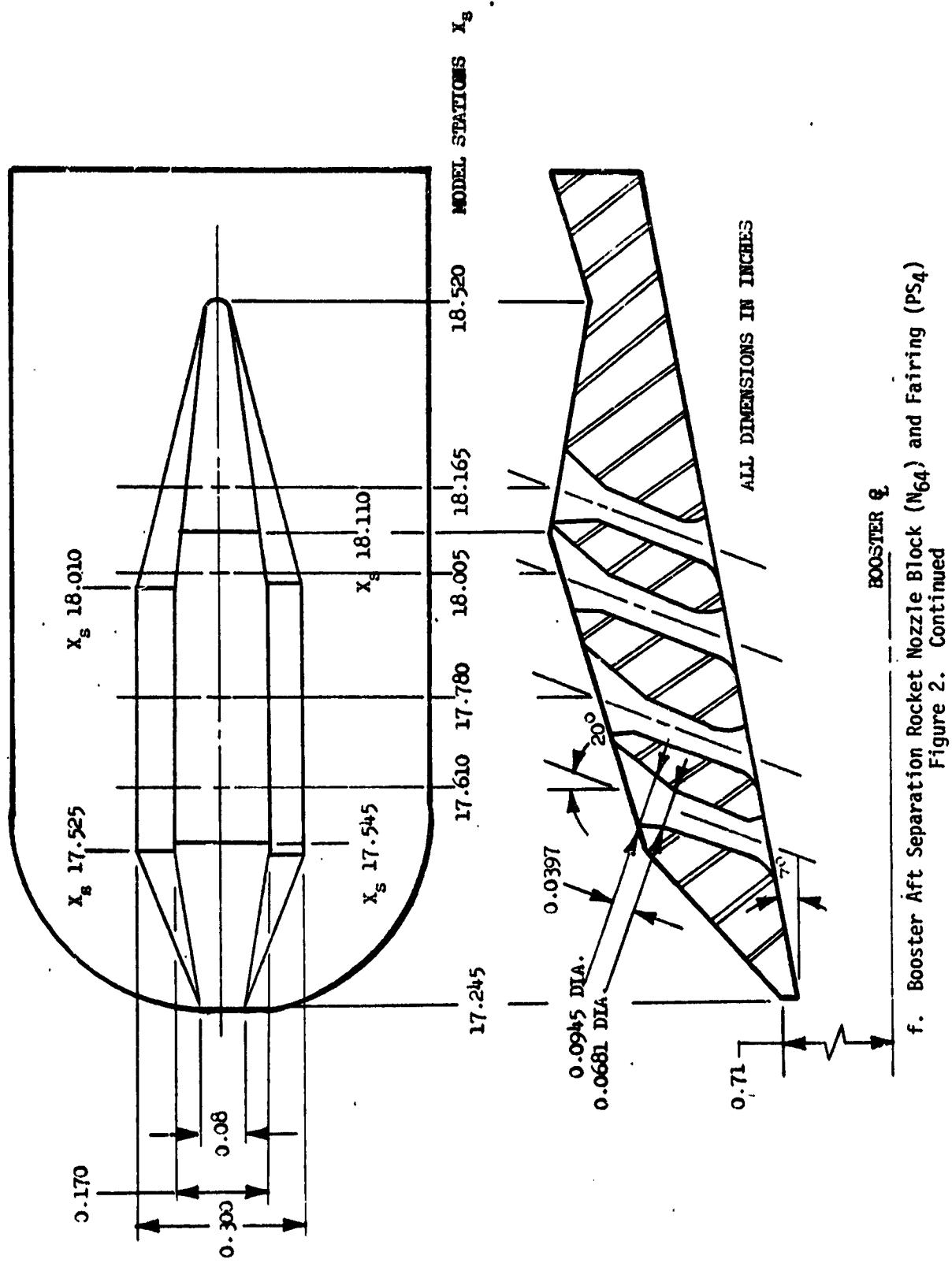
d. Aft Attachment of External Tank to Orbiter (AT6, AT7)  
Figure 2. Continued



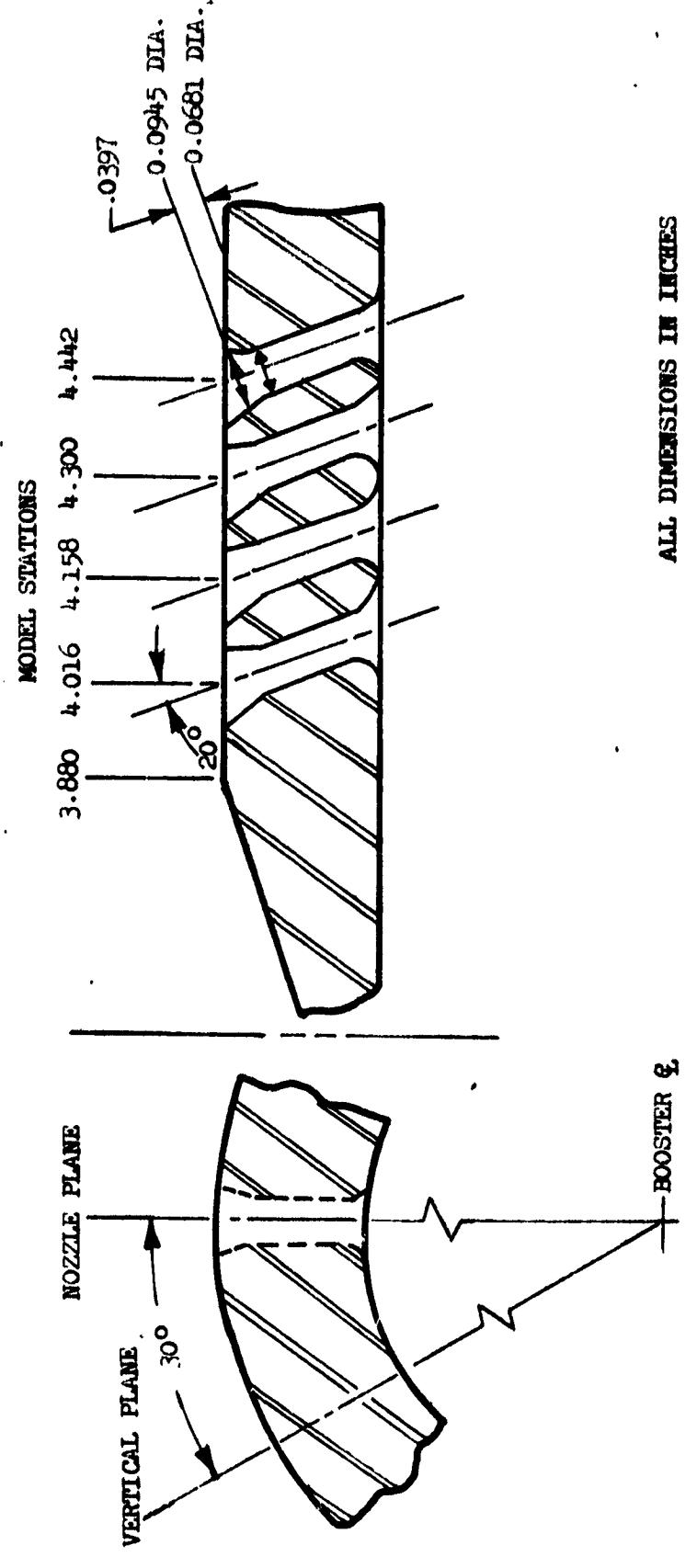
REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR



e. External Tank Protuberances (PT<sub>1</sub>, PT<sub>2</sub>, PT<sub>3</sub>)  
Figure 2. Continued

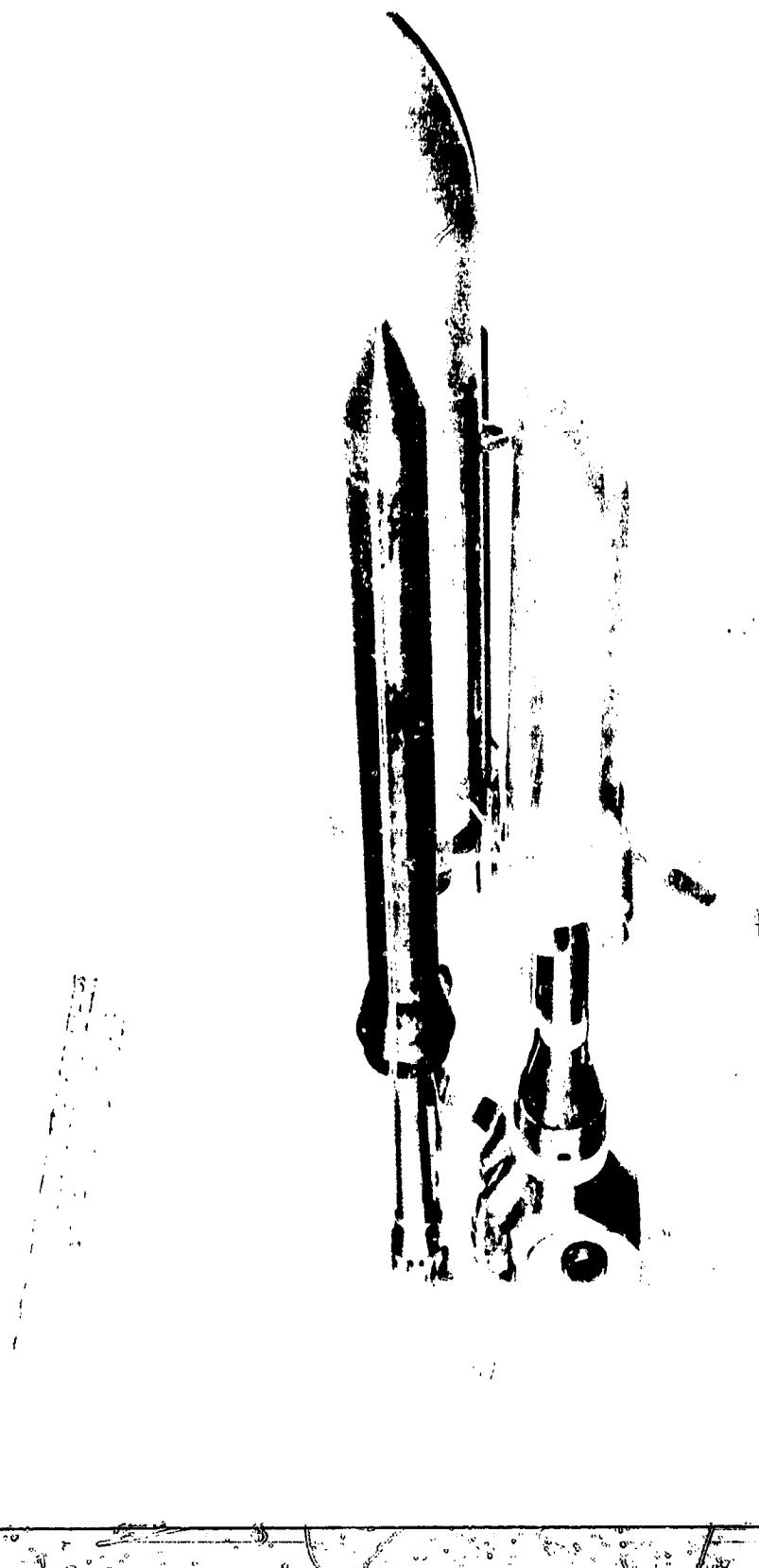


f. Booster Aft Separation Rocket Nozzle Block (N<sub>64</sub>) and Fairing (PS<sub>4</sub>)  
Figure 2. Continued



g. Booster Forward Separation Rocket Nozzle Block (N64)  
Figure 2. Continued

a. Orbiter/ET with SRBs in Position 1 (Mated)  
Figure 3. Model Photographs





b. Orbiter/ET with Right SRB in Position 3 ( $t=2$  seconds on Nominal Separation Trajectory) and Left SRB in Position 2 ( $t=1.25$  sec.)  
Figure 3. Continued

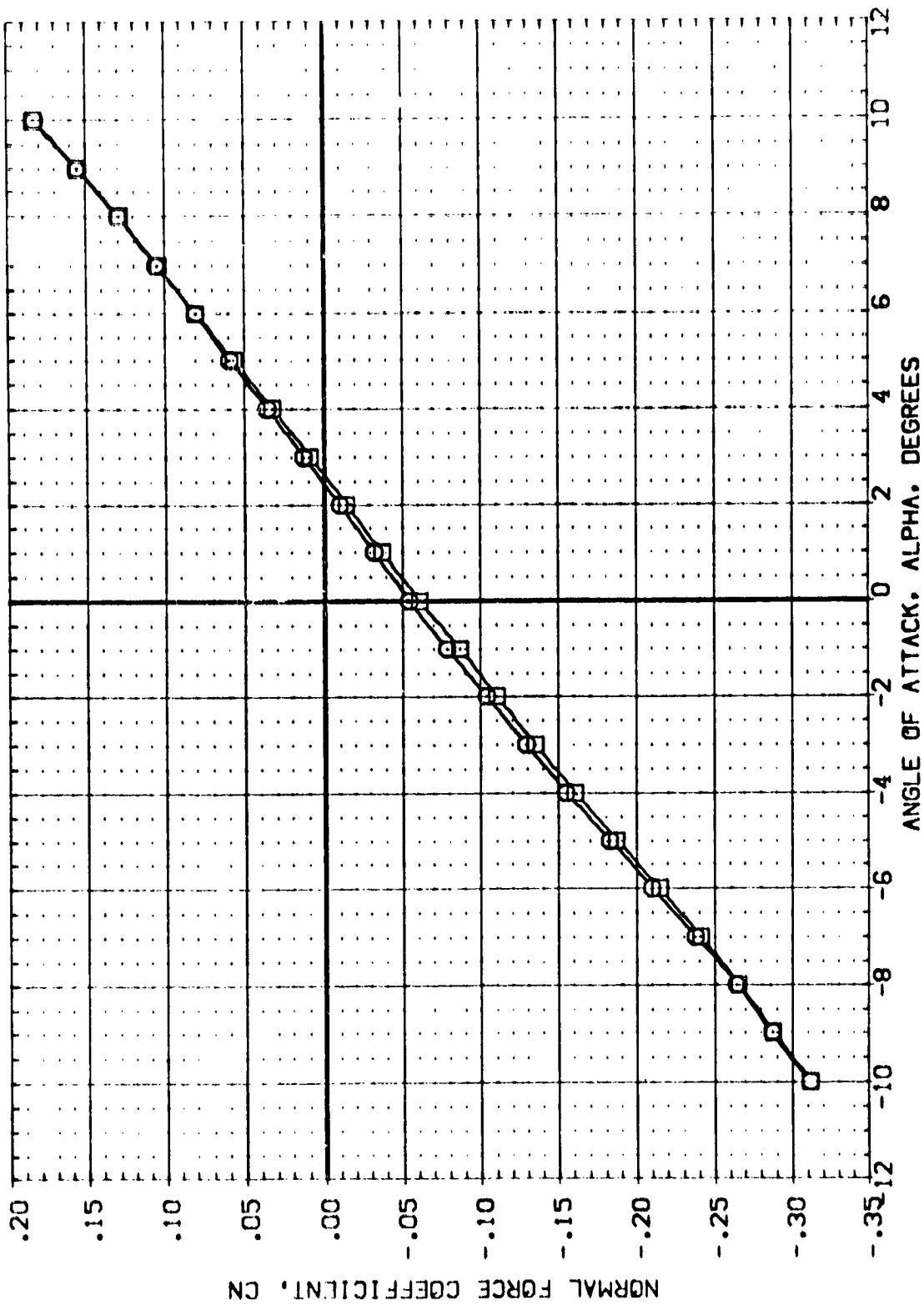


c. Orbiter/ET with both SRBs in Position 3 ( $t=2$  seconds on Nominal Separation Trajectory)  
Figure 3. Continued

DATA FIGURES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
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[RTLOC5]	AEDC VA-422([A-57]). ISOLATED CR/SET

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DELTA	.000
PI	.760
RHO	.750

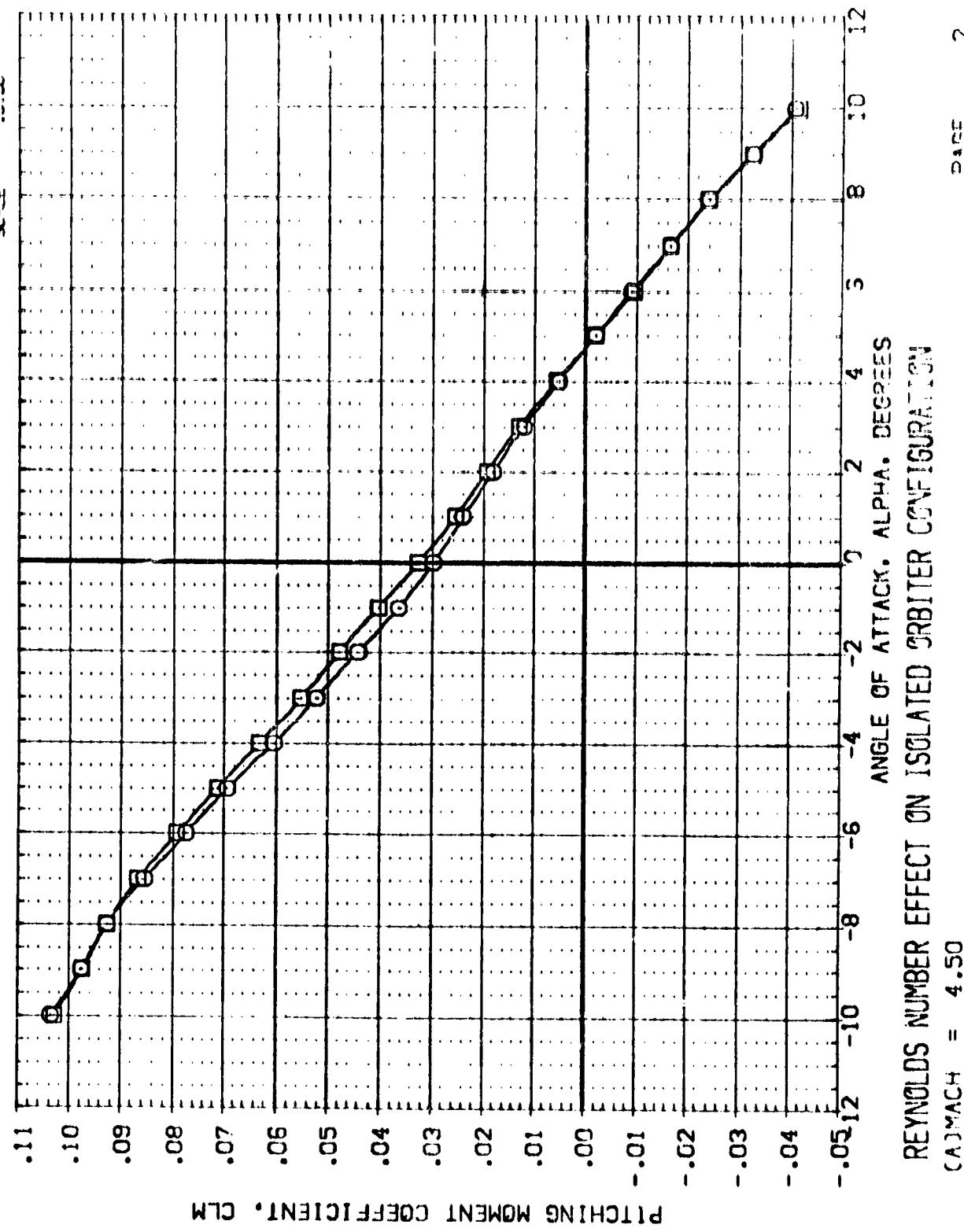


REYNOLDS NUMBER EFFECT ON ISOLATED ORBITER CONFIGURATION

$$CAJWACH = 4.50$$

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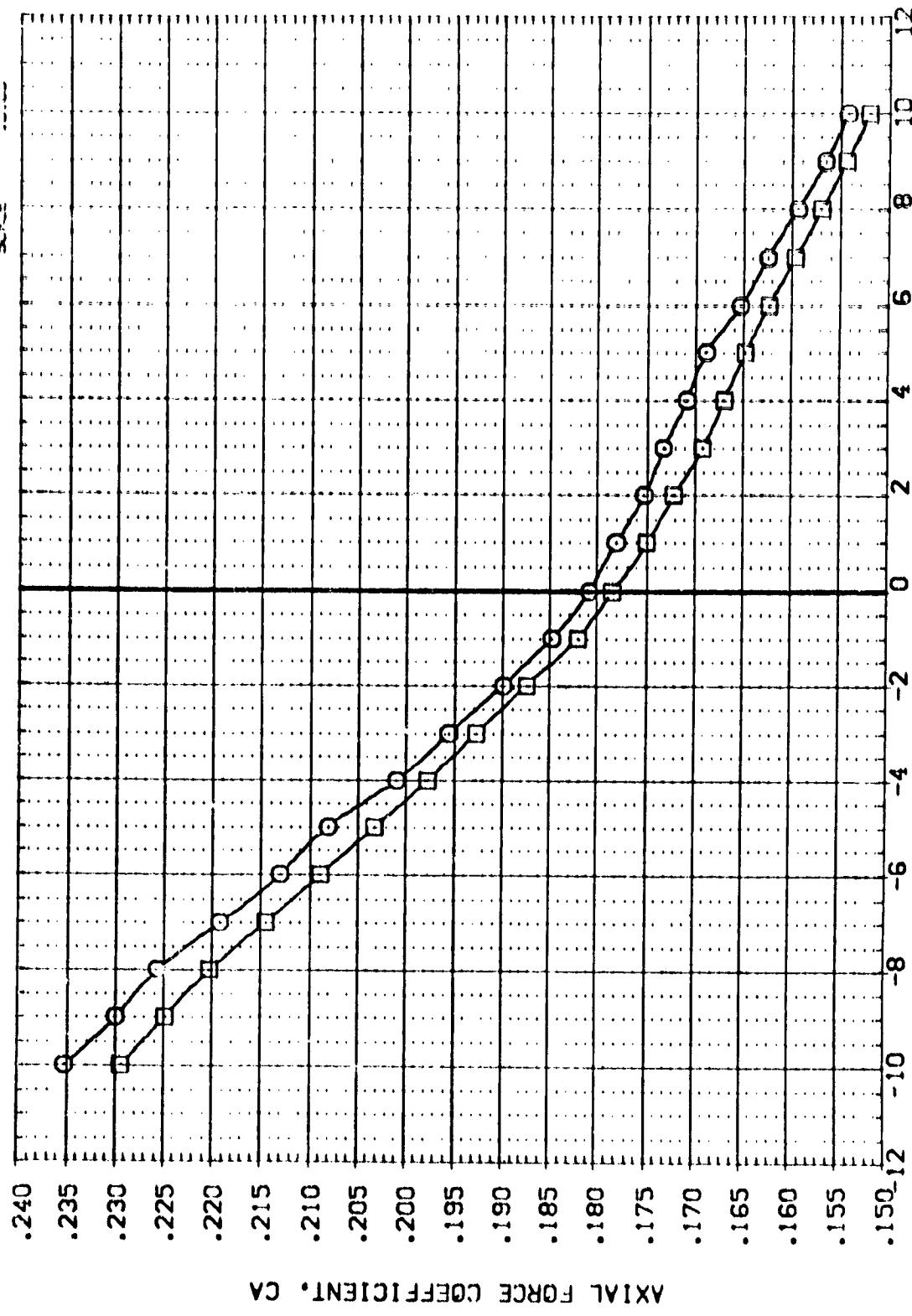
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SREF 2500 3000 IN.  
SREF 2500 3000 FT.  
YREF 4700  
XREF 4700  
SCALE 1:1



DATE 2

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
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(CRT LOGO)	AEDC VA-422[[A-57]] ISOLATED GR/B/E/T

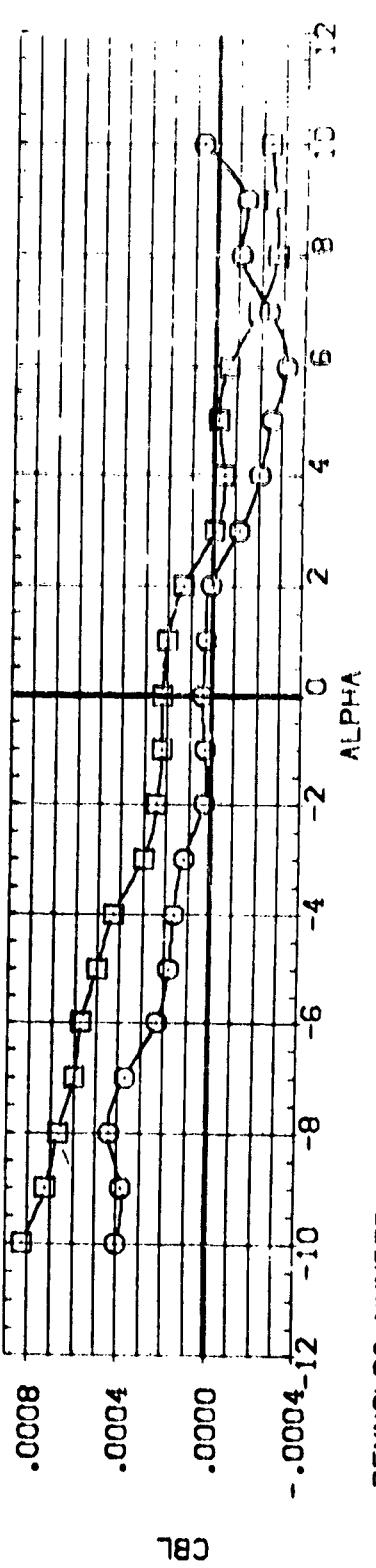
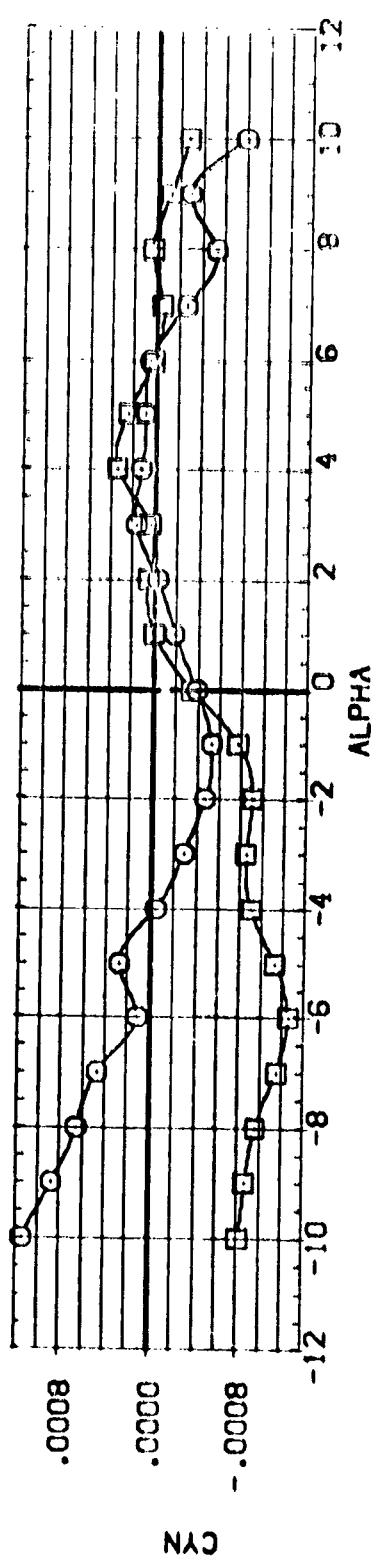
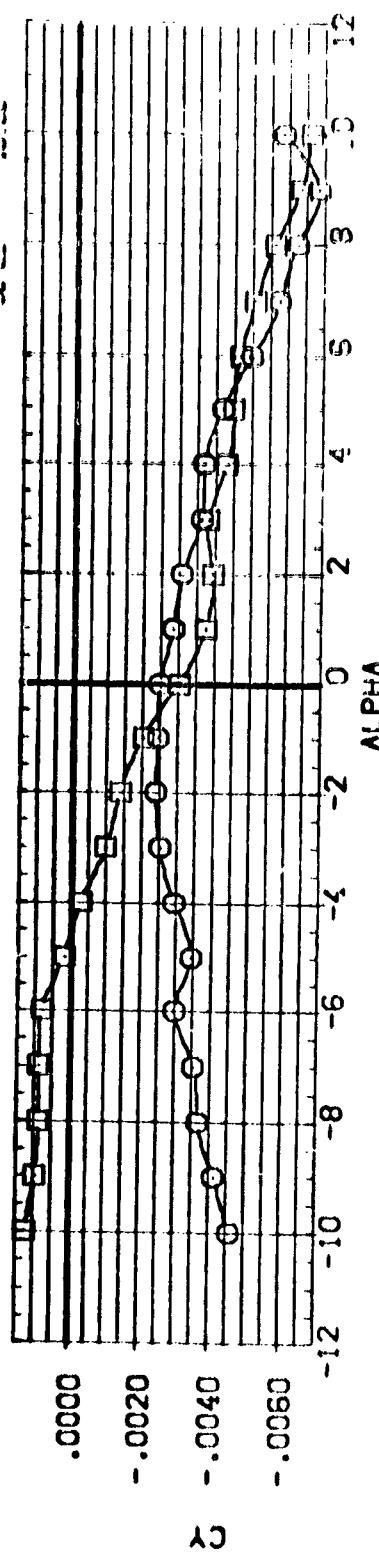
R.V.L.	BETA	EX-CHARGE INVESTIGATION		
		SPOT	2500	5000
1.760	.000			
6.750	.000			



## ANGLE OF ATTACK. ALPHA. DEGREES TICKED COMMITTED CONSIDERATION

REYNOLDS NUMBER  
CRIMACH = 4,59

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 (RTLOC5) C AEC: VA-422[IA-57]: ISOLATED GRBET  
 REFERENCE INFORMATION  
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 350-300  
 250-300  
 150-300  
 450-300  
 500-300  
 550-300  
 600-300  
 650-300  
 700-300  
 750-300  
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 1000-300  
 1050-300  
 1100-300  
 1150-300  
 1200-300



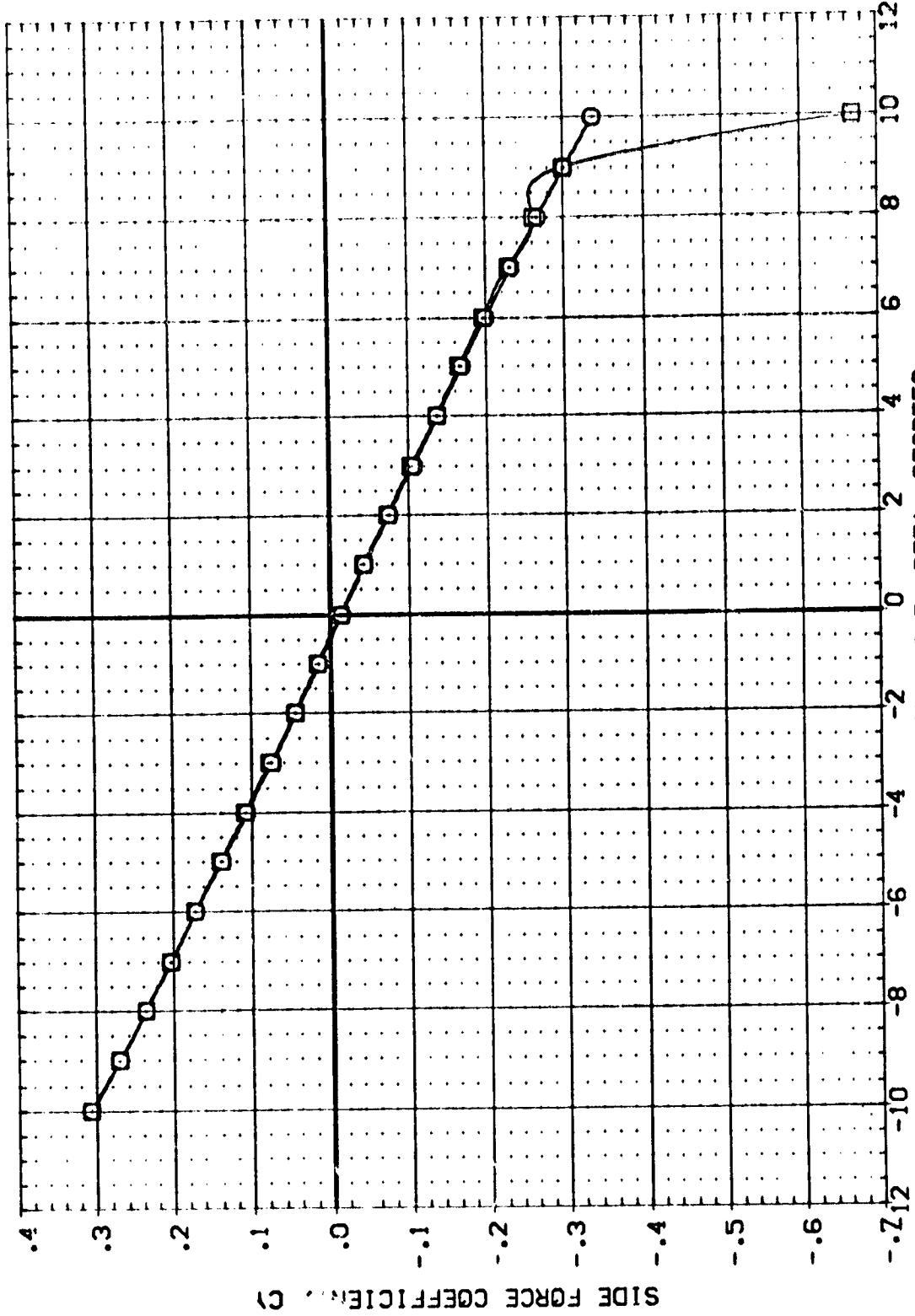
REYNOLDS NUMBER EFFECT ON ISOLATED ORBITER CONFIGURATION,  
 (A) MACH = 4.50

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 (RTLOC) AEDC VA-422([A-57]) ISOLATED ORBITER  
 (RTLOC) AEDC VA-422([A-57]) ISOLATED ORBITER

R/VL ALPHA  
 1.760 .000  
 6.750 .000

REFERENCE INFORMATION  
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 LREF 1250.3000 IN.  
 BREF 1250.3000 IN.  
 XRPD 1.552.0000 XFT  
 YRPD 1.552.0000 YFT  
 ZRPD 447.0000 ZFT  
 SCALE



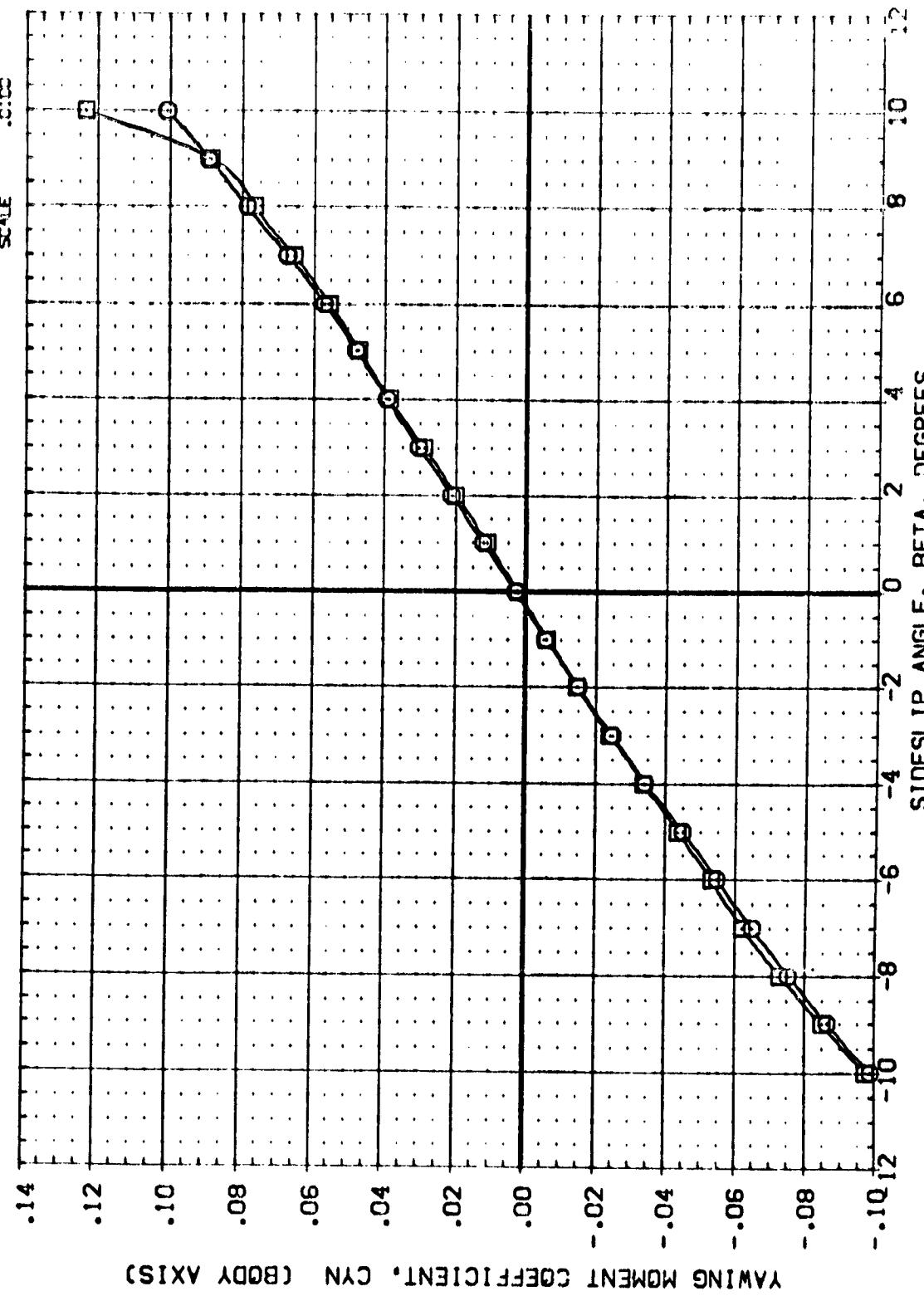
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CODMACH = 4.50

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RNL ALPHA  
1.760 .000  
6.750 .000

REFERENCE INFORMATION  
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BREF 1250.3000  
XCP 1532.3000  
YCP 447.8000  
ZCP 51.0000  
SCALE

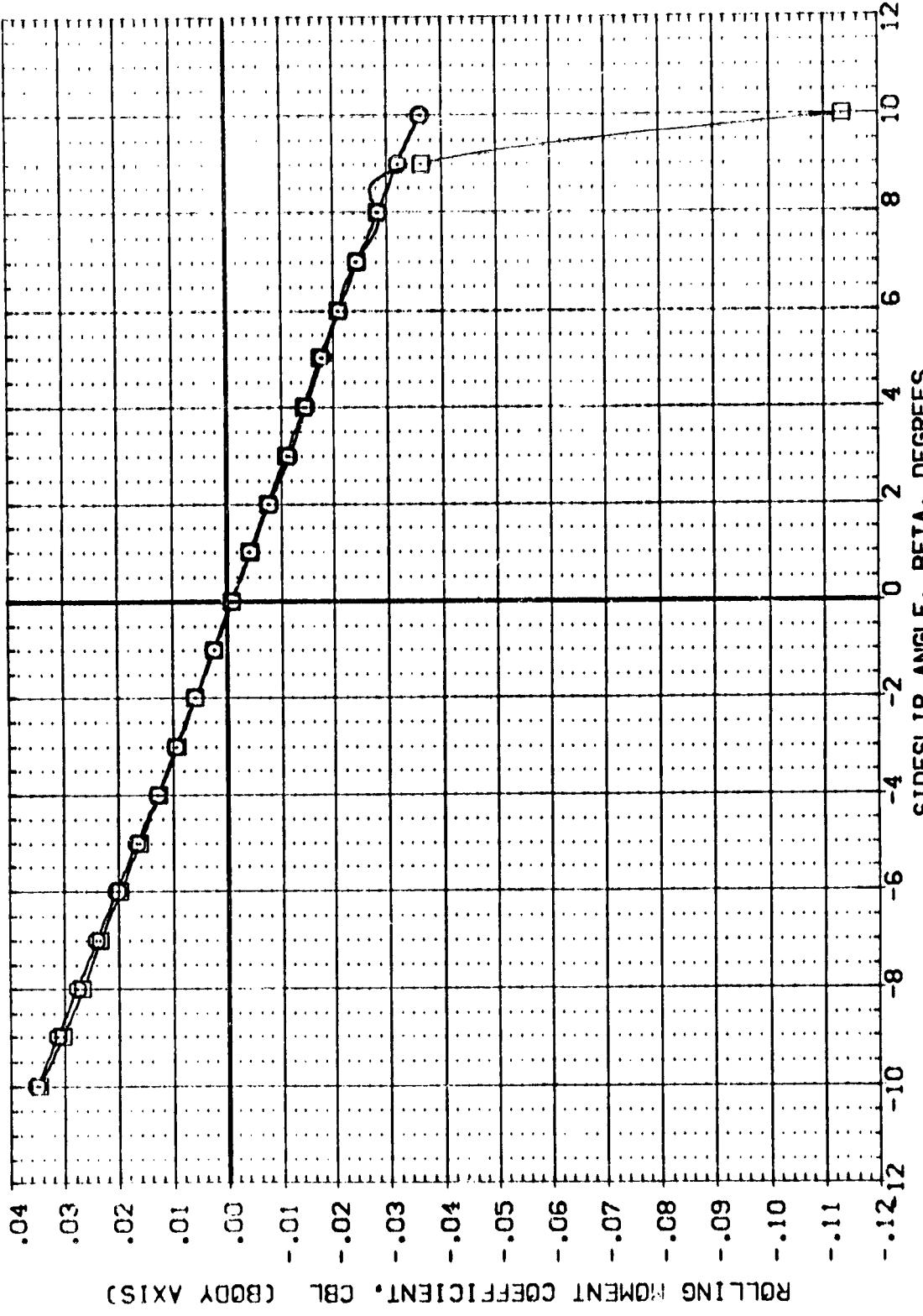


REYNOLDS NUMBER EFFECT ON ISOLATED ORBITER CONFIGURATION  
(A)MACH = 4.50

PAGE 3

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
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[RT-356] AEDC VA-4221(A-57). ISOLATED ORB/ET

REFERENCE INFORMATION  
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SFC 1280.0000 Y  
WIND 1252.0000 Z  
WIND 1252.0000 X  
SC. 447.0000 Y  
SC. 447.0000 Z



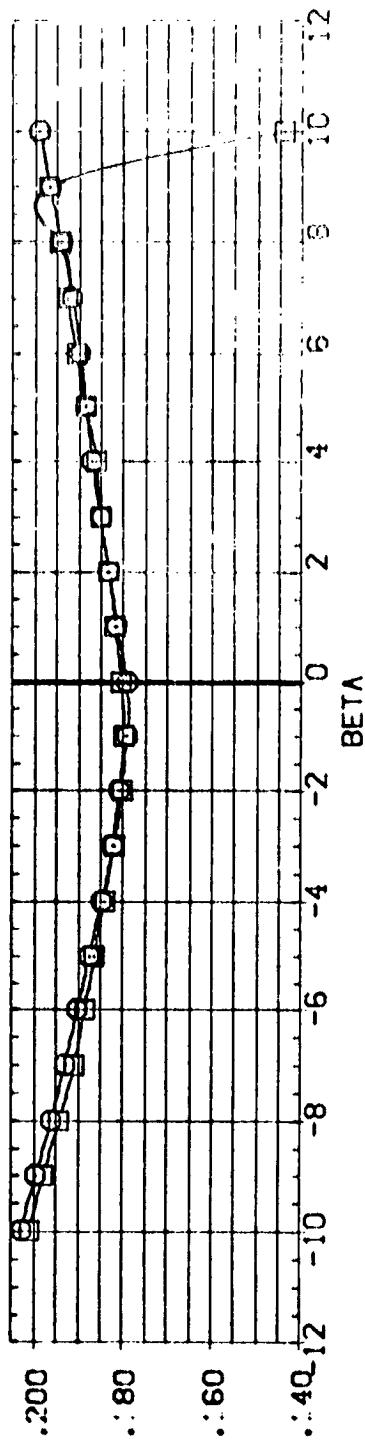
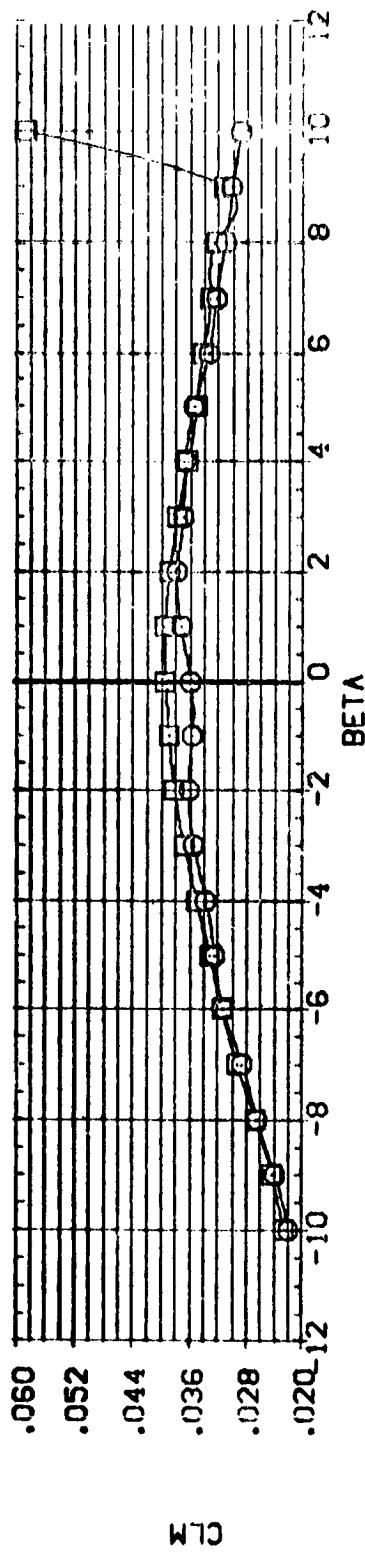
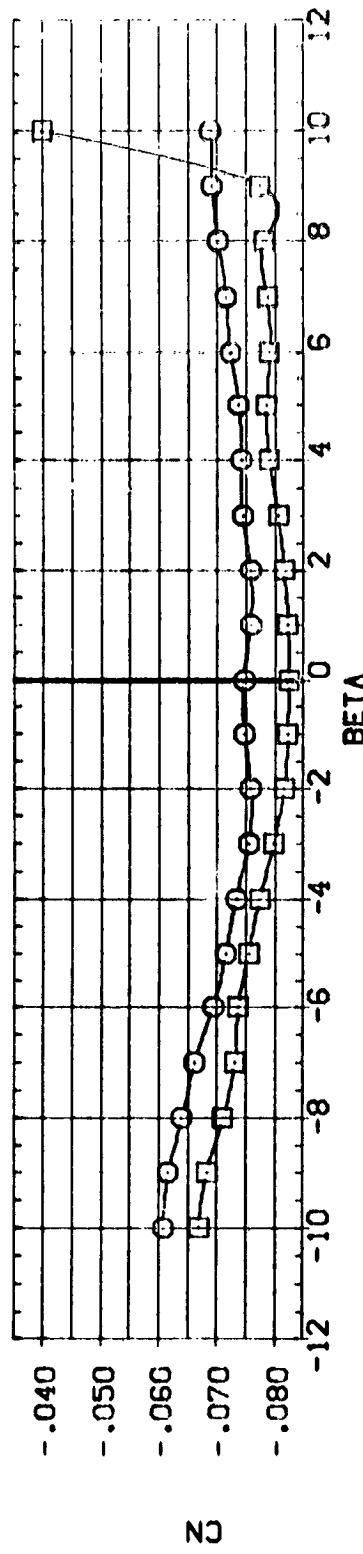
REYNOLDS NUMBER EFFECT ON ISOLATED ORBITER CONFIGURATION

(A) MACH = 4.50

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[RTL005]	AECD VA-422[IA-57]. ISOLATED

ALPHA .000 .000

RENT INSTITUTE 2290.000 2291.000 2292.000 2293.000 2294.000 2295.000 2296.000 2297.000



REYNOLDS NUMBER EFFECT ON ISOLATED ORBITER CONFIGURATION

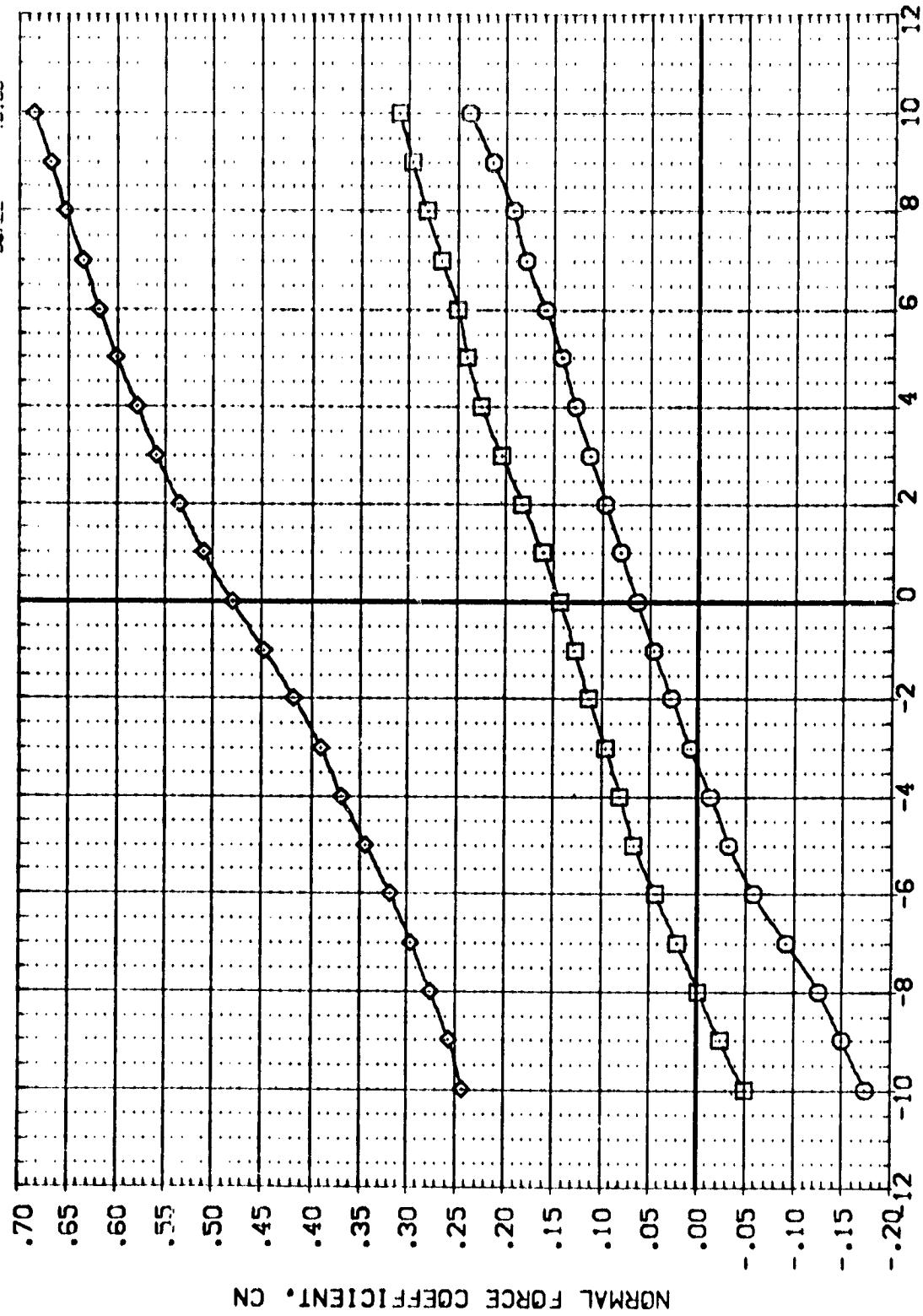
$$C_{\text{A3NACH}} = 4.50$$

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

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PT-342	AEDC VA-422(I-A-57)	CRB/ET V/BOTH SRB
PT-353	AEDC VA-422(I-A-57)	CRB/ET V/BOTH SRB

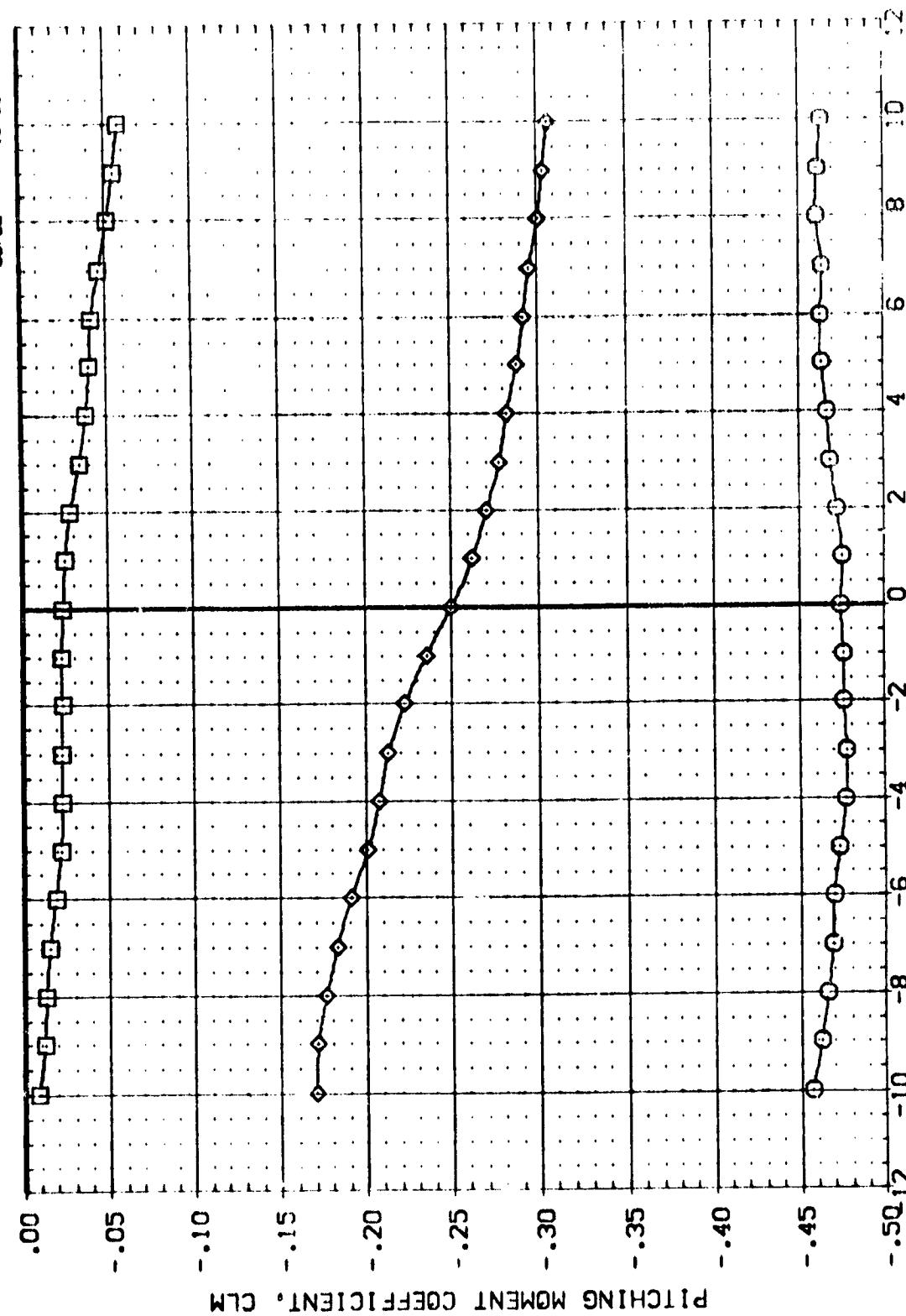
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 3.300 1.010 1500.000 1260.320  
 XREF XREF XREF XREF  
 YREF YREF YREF YREF  
 ZREF ZREF ZREF ZREF  
 SCALE SCALE SCALE SCALE



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.01)  
 (A)MACH = 4.50

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 (RTL-042) AEDC VA-422(IA-57). ORB/ET V/BOTH SRB  
 (RTL-053) AEDC VA-422(IA-57). ORB/ET V/BOTH SRB

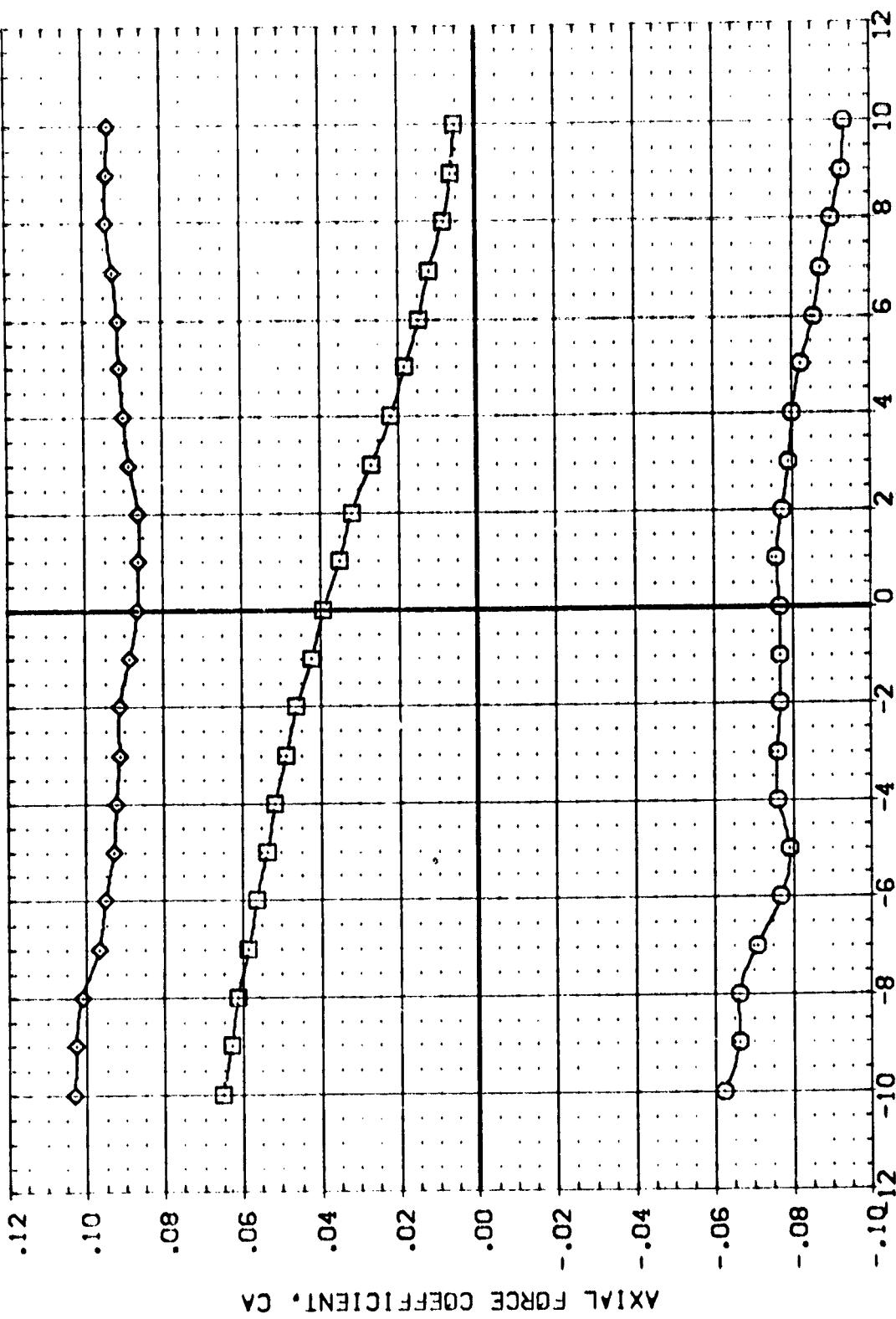
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 YPOS 447.5000  
 SCALE .010



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RNL = 1.31)  
 (A)MACH = 4.50  
 PAGE 10

DATA SET SYMBOL CONFIGURATION DESCRIPTION

R-C31	AEDC VA-422(AA-57), CRB/ET V/BOTH SRB
R-C42	AEDC VA-422(AA-57), CRB/ET V/BOTH SRB
R-C53	AEDC VA-422(AA-57), CRB/ET V/BOTH SRB



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.01)  
(AJMACH = 4.50)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

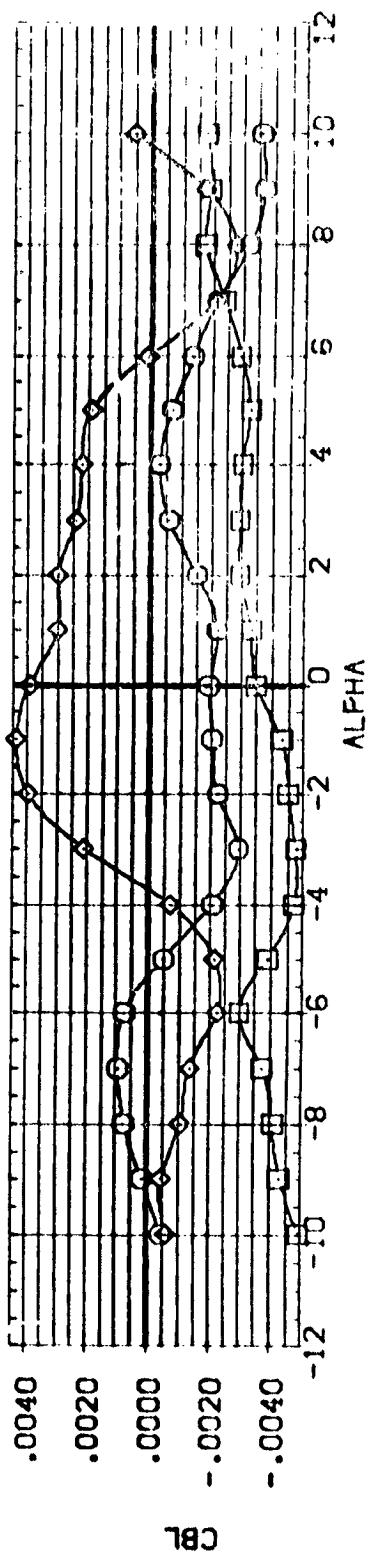
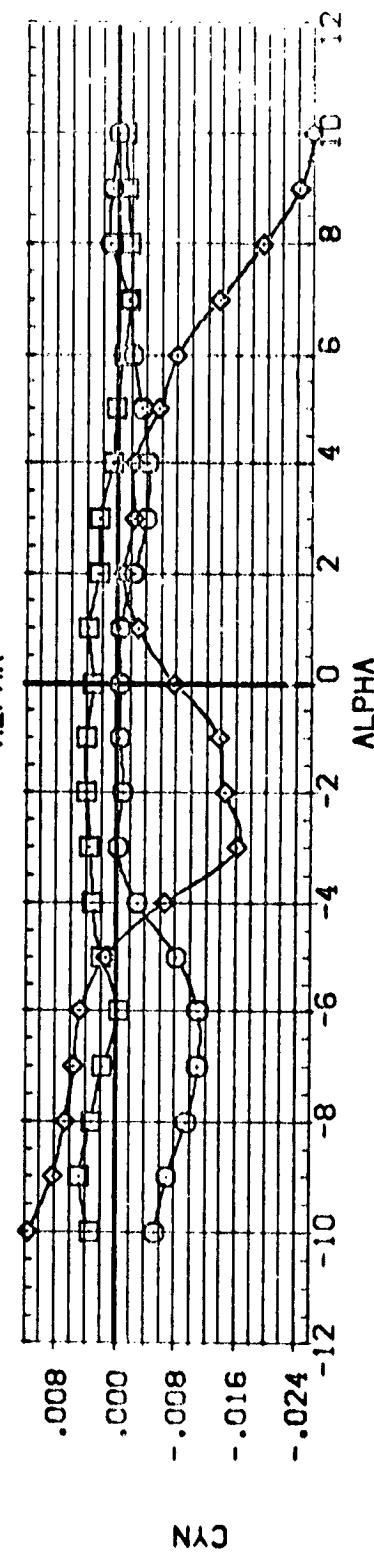
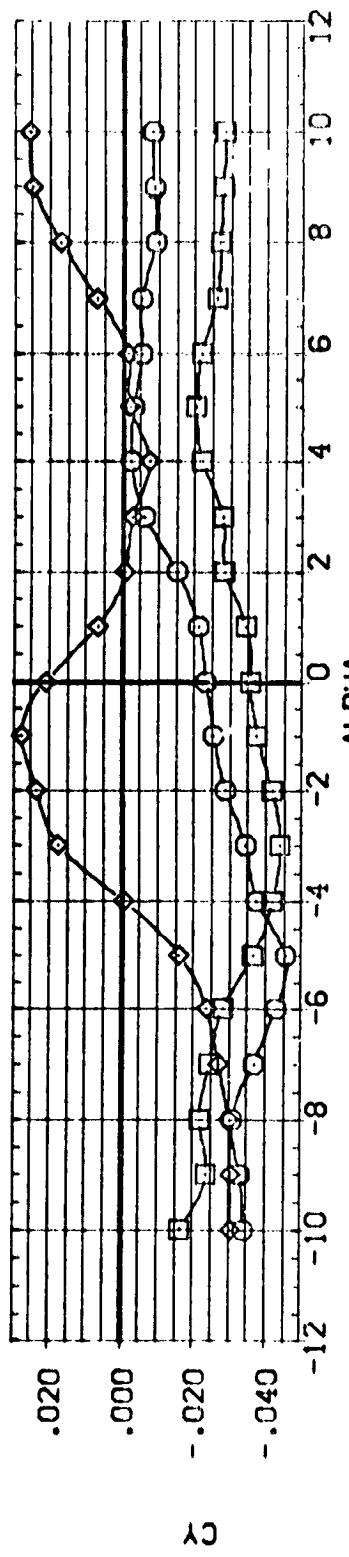
R-C31	AEDC VA-422(AA-57), CRB/ET V/BOTH SRB
R-C42	AEDC VA-422(AA-57), CRB/ET V/BOTH SRB
R-C53	AEDC VA-422(AA-57), CRB/ET V/BOTH SRB

REFERENCE INFORMATION

SPHPOS	RNL	PT-JET	BETA	REF.	REFERENCE SCALE
1.100	1.010	1500.000	.000	2500.000	SC.FT.
2.200	1.010	1500.000	.000	1250.000	SC.FT.
3.300	1.010	1500.000	.000	1250.000	SC.FT.
				1320.000	SC.FT.
				1447.500	SC.FT.
				1447.500	SC.FT.

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLC031) AEDC VA-422(A-57); GRB/ET V/BOTH S98  
 (RTLC042) AEDC VA-422(A-57); GRB/ET V/BOTH S98  
 (RTLC53) AEDC VA-422(A-57); GRB/ET V/BOTH S98

SRPOS RAVL PT-JET BETA  
 1.100 1.010 1500.000 .300  
 2.200 1.010 1500.000 .300  
 3.300 1.010 1500.000 .300  
 REFERENCE INFORMATION  
 SO. FT.  
 2590.0000 2590.0000  
 1280.3200 1280.3200  
 1250.2600 1250.2600  
 1252.2600 1252.2600  
 YARD 447.0000  
 SCALE



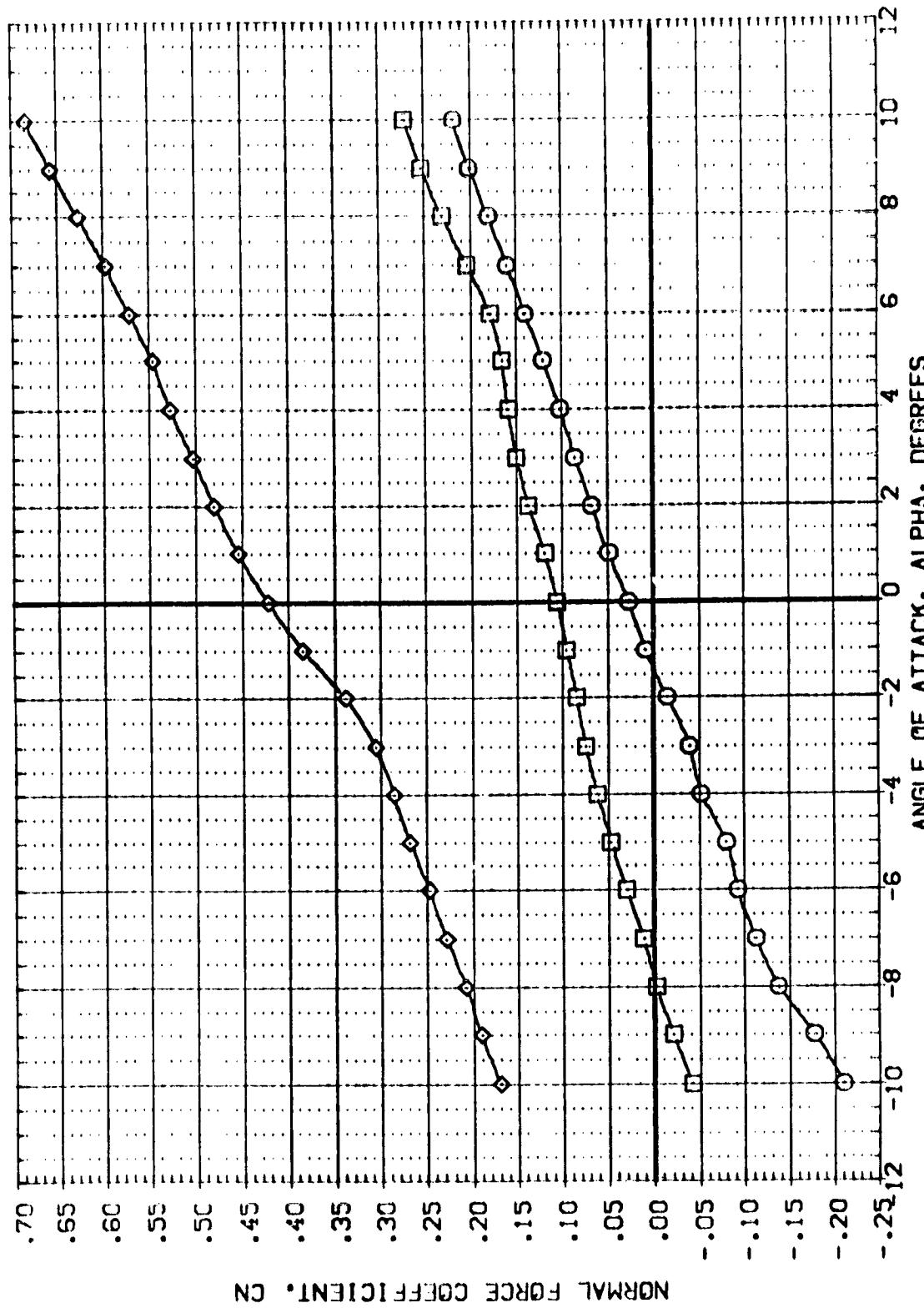
EFFECT OF SYMMETRICAL SRB SEPARATION ON C/ET CHARACT. (RN/L = 1.01)

CASWACH = 4.50

DATE 1-2

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

SR#POS	RN/L	PT-JET	BETA	REFERENCE INFORMATION	
				SIZE	SC. FT.
1-100	1-400	1500.000	.000	2650	10000
2-200	2-400	1500.000	.000	1850	10000
3-300	3-400	1500.000	.000	1250	3000

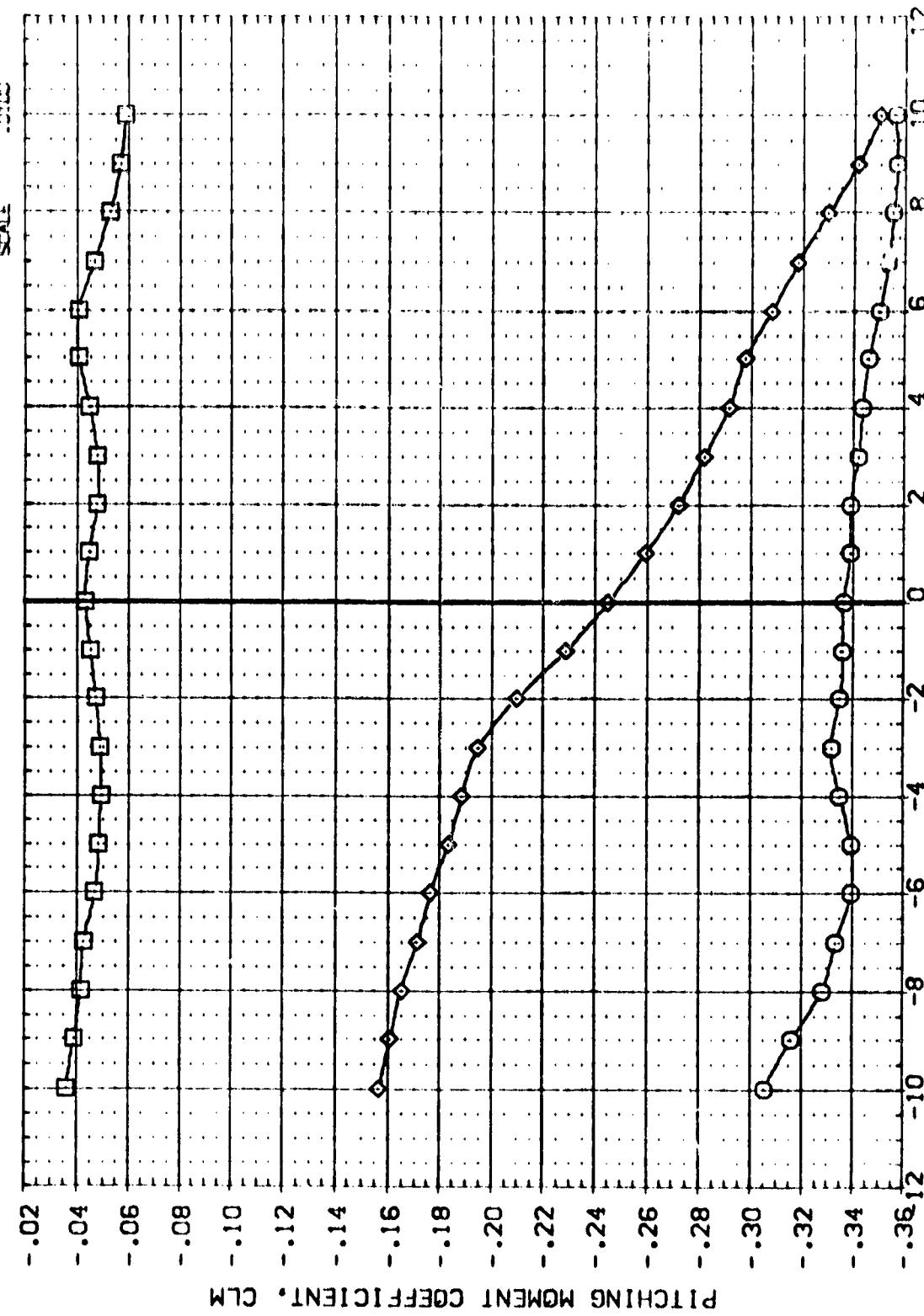


### EFFECT OF SYMMETRICAL SRB SEPARATION ON C/ET CHARECT. (RNA/L=1.4)

$$(\text{C A})_{\text{MACH}} = 4.50$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL032) O VA-422(IA-571); GRB/ET V/BOTH SRB  
 (RTL043) □ NEDC VA-422(IA-571); GRB/ET V/BOTH SRB  
 (RTL054) ◇ AEDC VA-422(IA-571); GRB/ET V/BOTH SRB

REFPOS RAV/L PT-JET BETA REFERENCE INFORMATION  
 1.100 1.400 1.500 1.600 SC.FT.  
 2.200 1.400 1.500 1.600 LFT.  
 3.300 1.400 1.500 1.600 RFT.  
 XREF YREF ZREF 44.7 21.0  
 SCALE

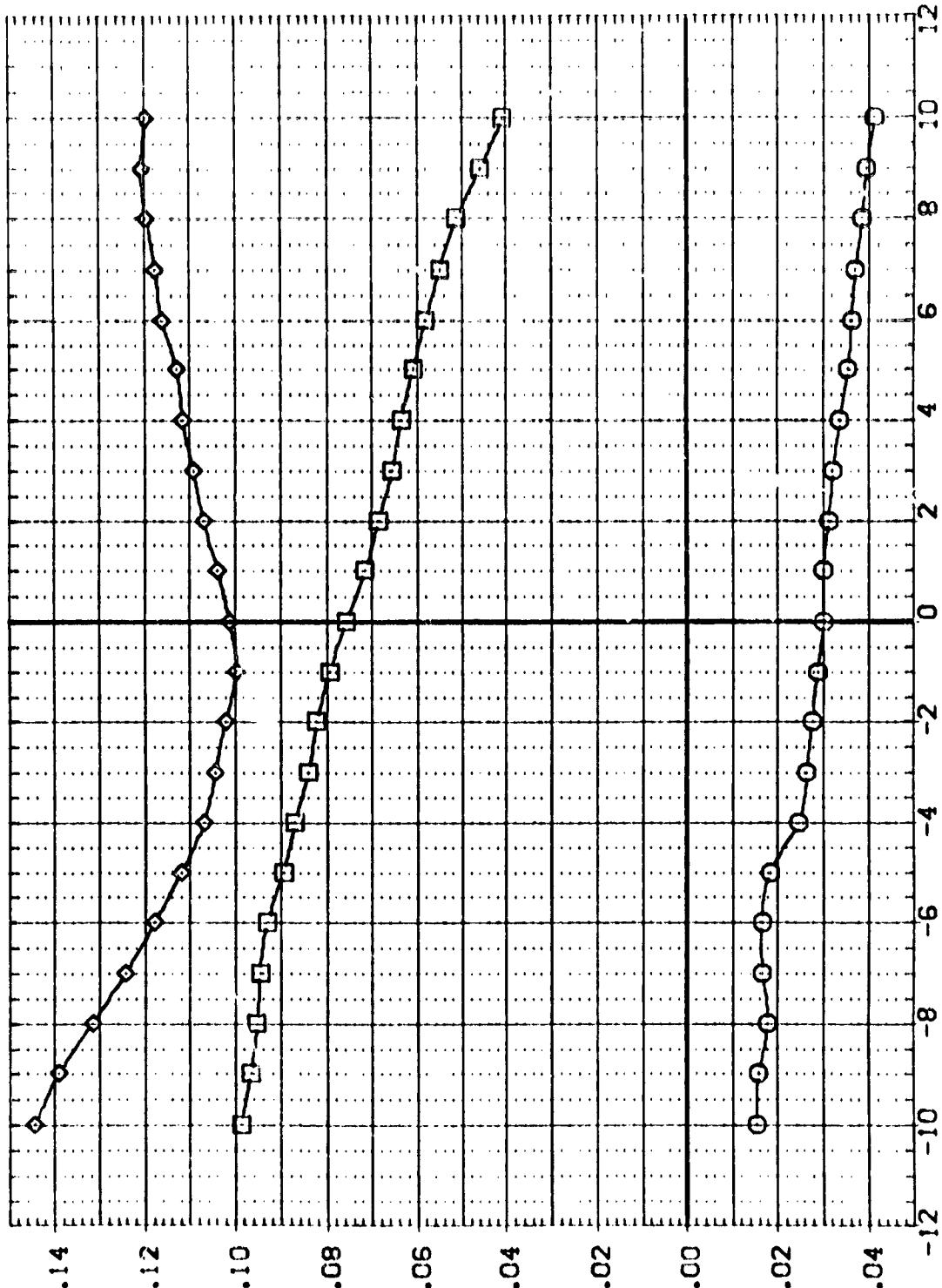


EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.4)  
 (A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRT\_032 AEDC VA-422(A-57) ORB/ET V/BOTH SRB  
 CRT\_C43 AEDC VA-422(A-57) ORB/ET V/BOTH SRB  
 CRT\_CS4 AEDC VA-422(A-57) SRB/ET V/BOTH SRB

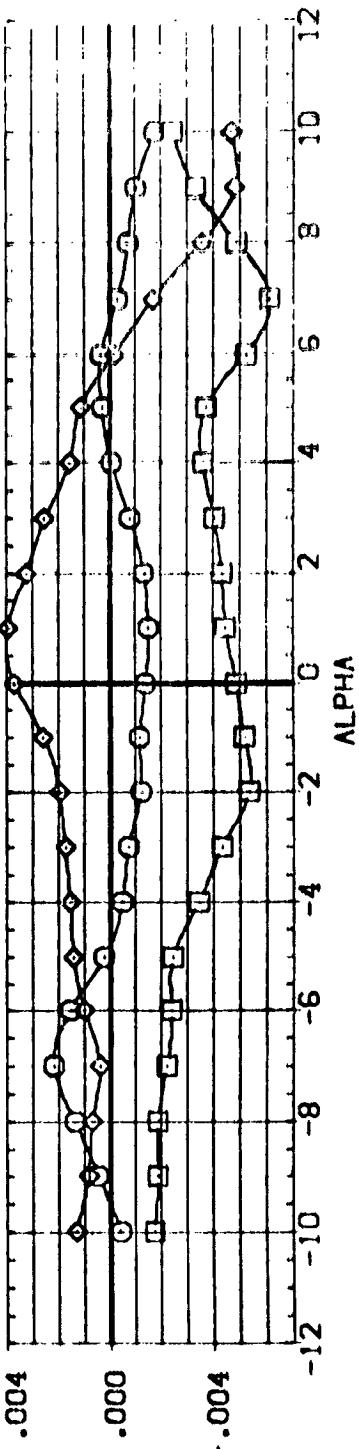
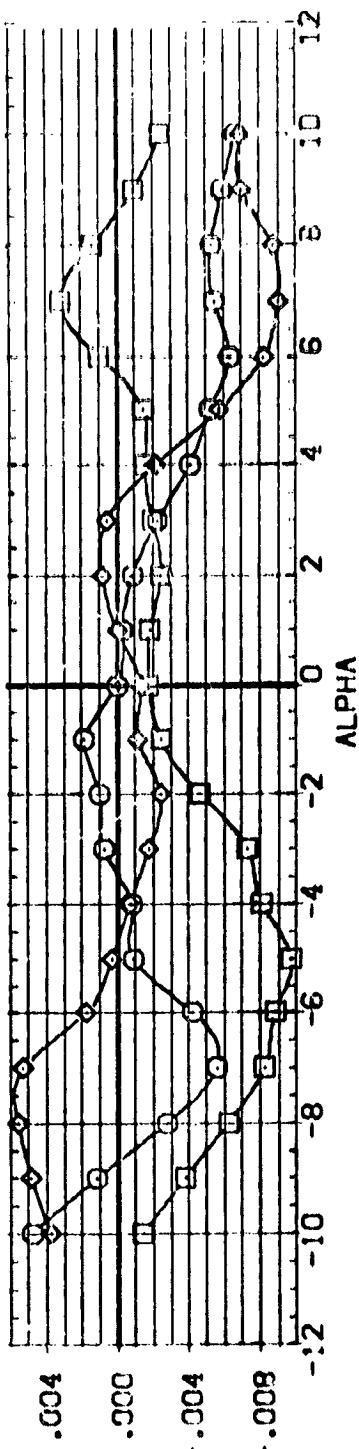
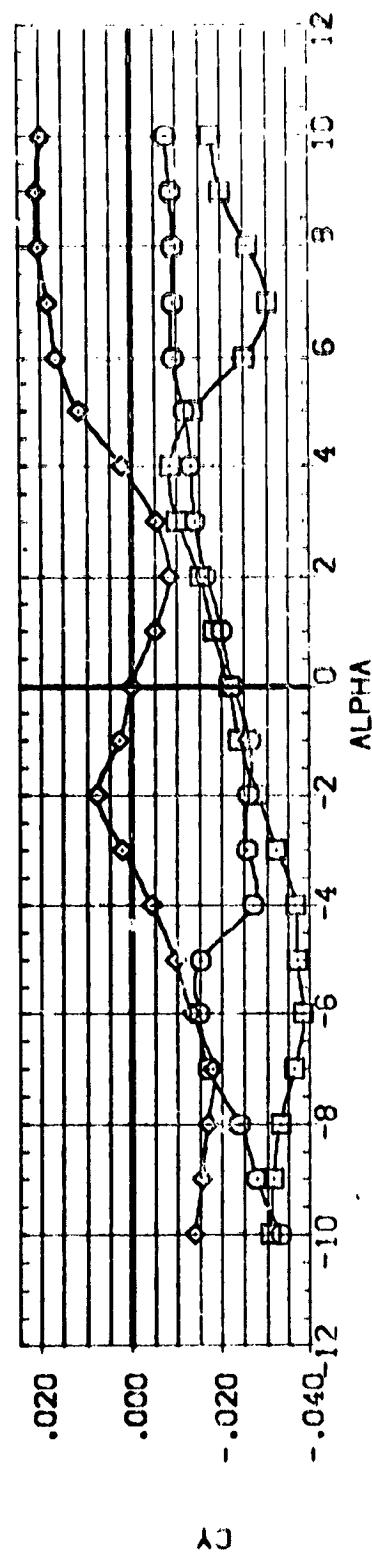
SRBPOS R/V/L PT-JET BETA  
 1.100 1.400 1500.000 .000  
 2.200 1.400 1500.000 .000  
 3.300 1.400 1500.000 .000  
 SCALE 447.312



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EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (CRN/L=1.4)  
 (A)MACH = 4.50

DATA SET SYSTEM CONFIGURATION DESCRIPTION  
 CRTL032 AEDC VA-422(1A-57) GRB/ET V/BOTH SRB  
 CRTL043 AEDC VA-422(1A-57) GRB/ET V/BOTH SRB  
 CRTLCS4 AEDC VA-422(1A-57) GRB/ET V/BOTH SRB



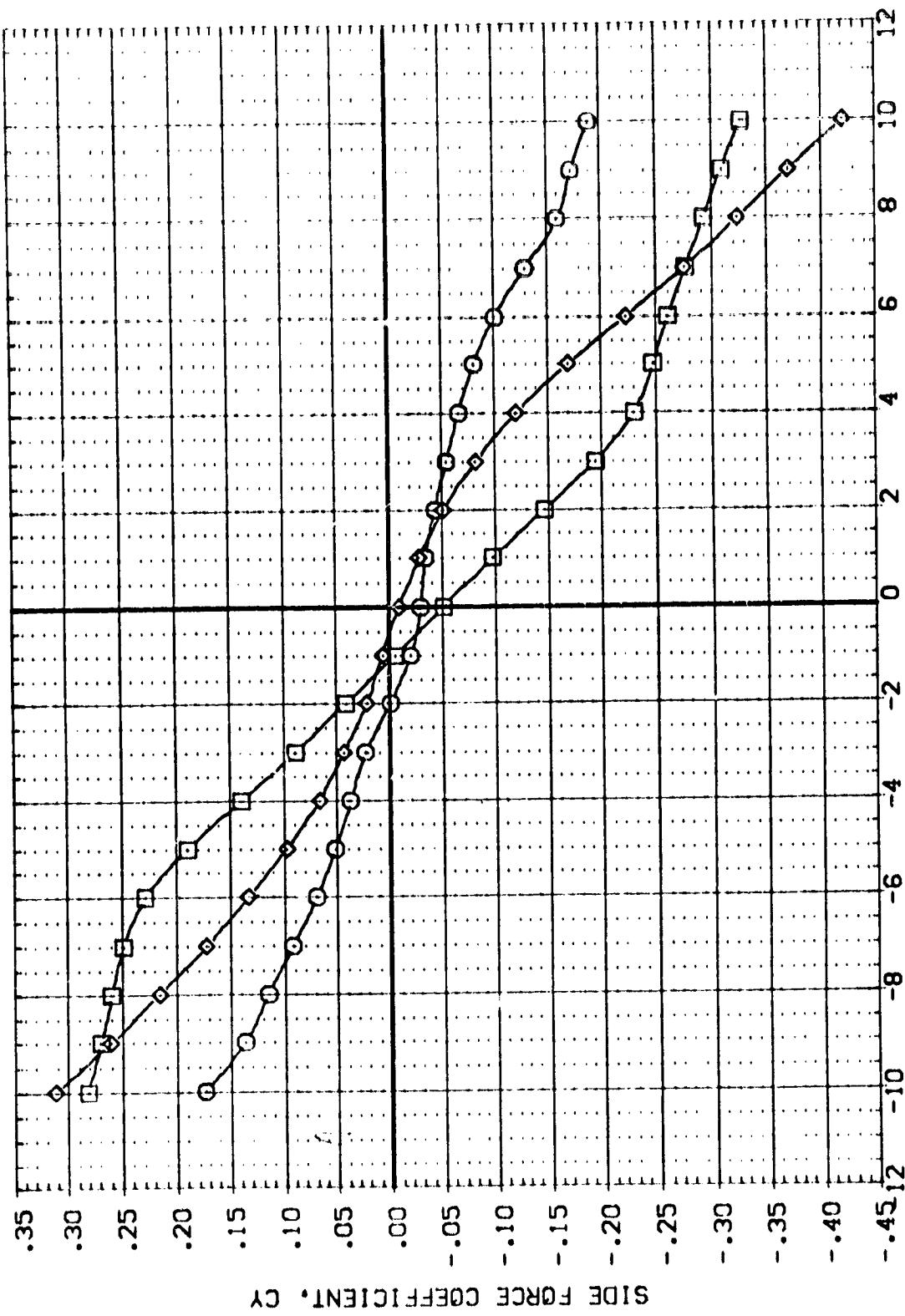
EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHRACT. (RV/L=1.4)  
 $(\alpha)_MACH = 4.50$

DATE 15

DATA SET SYMBOL CONFIGURATION DESCRIPTION

RT-LC33	□	AEDC VA-422 [A-57]; ORB/ET V/BOTH SRB
RT-LC44	○	AEDC VA-422 [A-57]; ORB/ET V/BOTH SRB
RT-LC55	△	AEDC VA-422 [A-57]; GRB/ET V/BOTH SRB

SERPOS RVAL PT-JET ALPHA REFERENCE INFORMATION  
 1.100 1.400 1500.000 .000 2500.200 50. FT.  
 2.200 1.400 1500.000 .000 2500.200 50.  
 3.300 1.400 1500.000 .000 2500.200 50.  
 4.400 1.400 1500.000 .000 2500.200 50.  
 5.500 1.400 1500.000 .000 2500.200 50.  
 6.600 1.400 1500.000 .000 2500.200 50.  
 7.700 1.400 1500.000 .000 2500.200 50.  
 8.800 1.400 1500.000 .000 2500.200 50.  
 9.900 1.400 1500.000 .000 2500.200 50.  
 10.000 1.400 1500.000 .000 2500.200 50.  
 11.100 1.400 1500.000 .000 2500.200 50.  
 12.200 1.400 1500.000 .000 2500.200 50.



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.4)

( $\Delta$ )<sub>MACH</sub> = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL033) AEDC VA-122(IA-57). SRB V/BOTH SRB  
 (RTL044) AEDC VA-122(IA-57). SRB V/BOTH SRB  
 (RTL055) AEDC VA-122(IA-57). SRB V/BOTH SRB

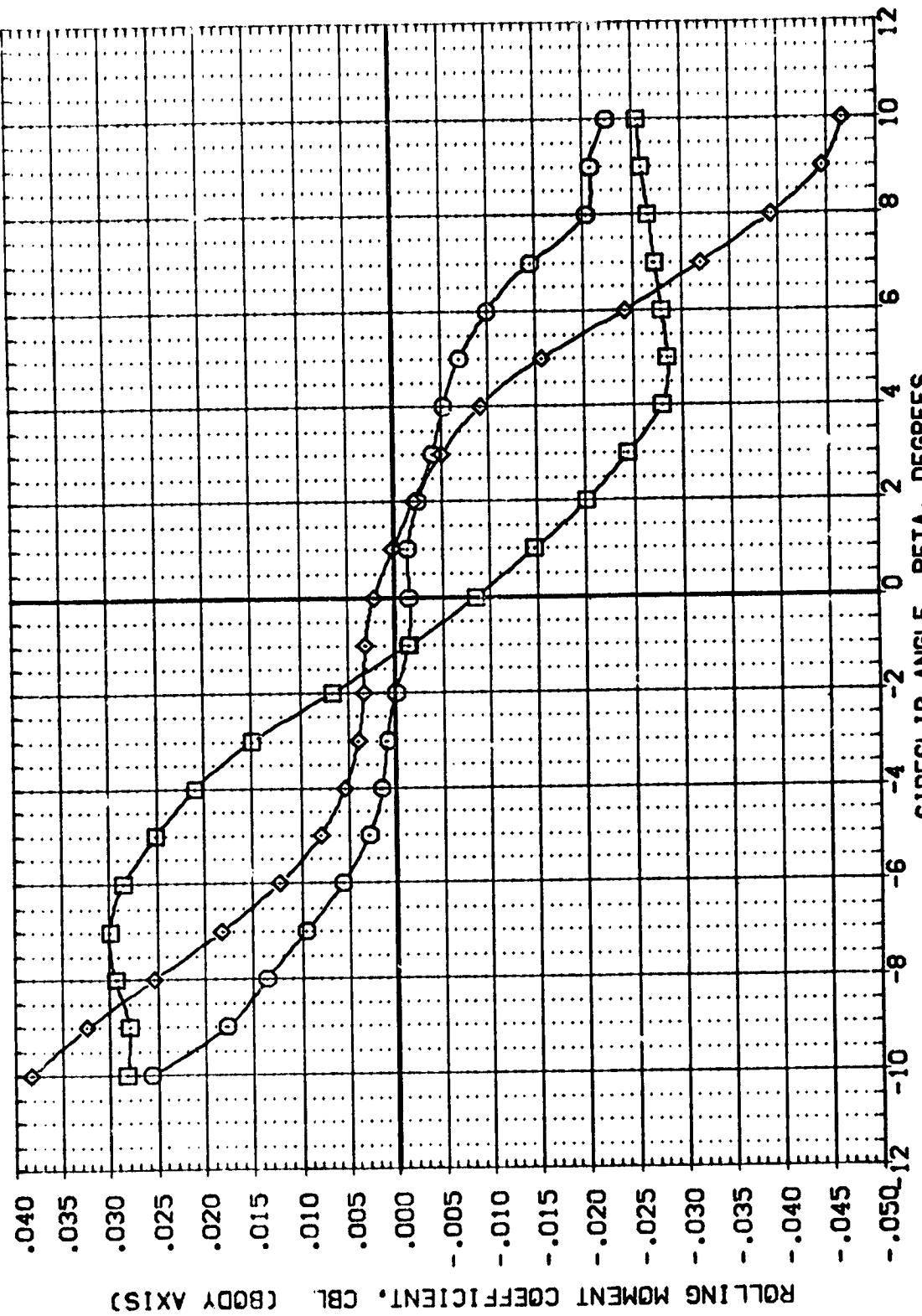
SRB/S 30/L PT-JET ALPHA REFERENCE INFORMATION  
 1.100 1500.000 0.000 SRF 280.000 SC.F.  
 2.200 1500.000 .400 LSF 1280.333 SC.F.  
 3.300 .400 1500.000 .400 RSF 1280.333 SC.F.  
 YARD 2000 2000 447.000 SC.F.  
 SCALE .0100



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHRACT. (RN/L=.4)  
 (A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL033) AEDC VA-422(IA-57), CRB/ET V/BOTH SRB  
 (RTL044) AEDC VA-422(IA-57), CRB/ET V/BOTH SRB  
 (RTL055) AEDC VA-422(IA-57), CRB/ET V/BOTH SRB

STEPS	RN/L	PT-JET	ALPHA	REFERENCE INFORMATION
1.100	1.400	1500,000	.000	SREF 2680,0000 SC.FT.
2.200	1.400	1500,000	.000	LREF 1250,300 IN.
3.300	1.400	1500,000	.000	BREF 1230,300 IN.
			.000	XMRP .052,0000 IN.
			.000	YMRP .047,0000 IN.
			.000	ZMRP .447,0000 IN.
				SCALE .0100



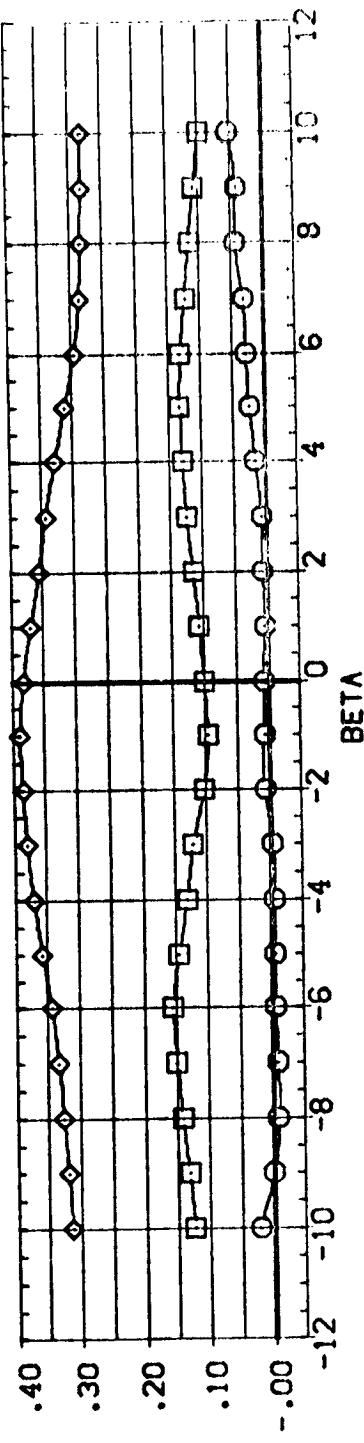
EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.4)

(A)MACH = 4.50

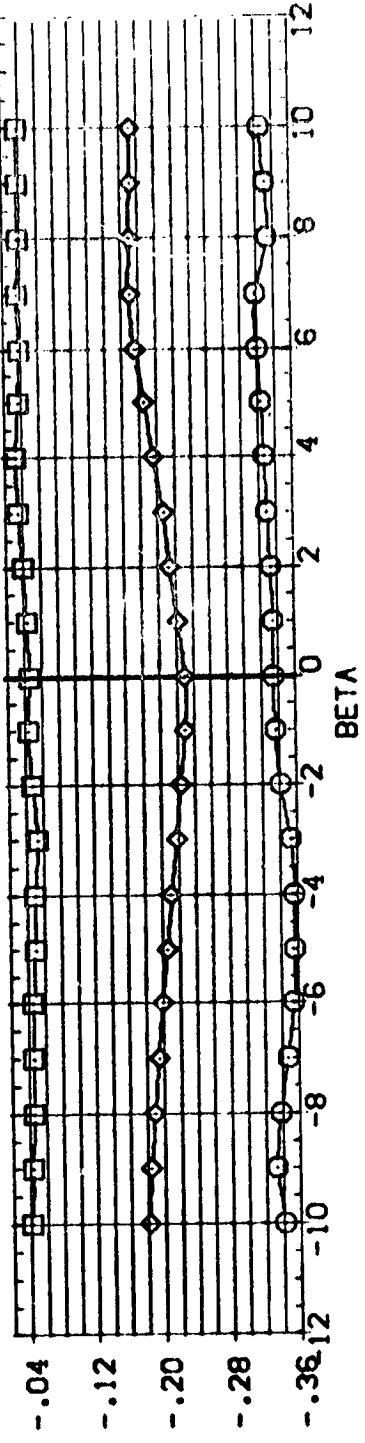
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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL03) AEDC VA-422 (A-57) GRB/ET W/BOTH SRB  
 (RTL04) AEDC VA-422 (A-57) GRB/ET W/BOTH SRB  
 (RTL05) AEDC VA-422 (A-57) GRB/ET W/BOTH SRB

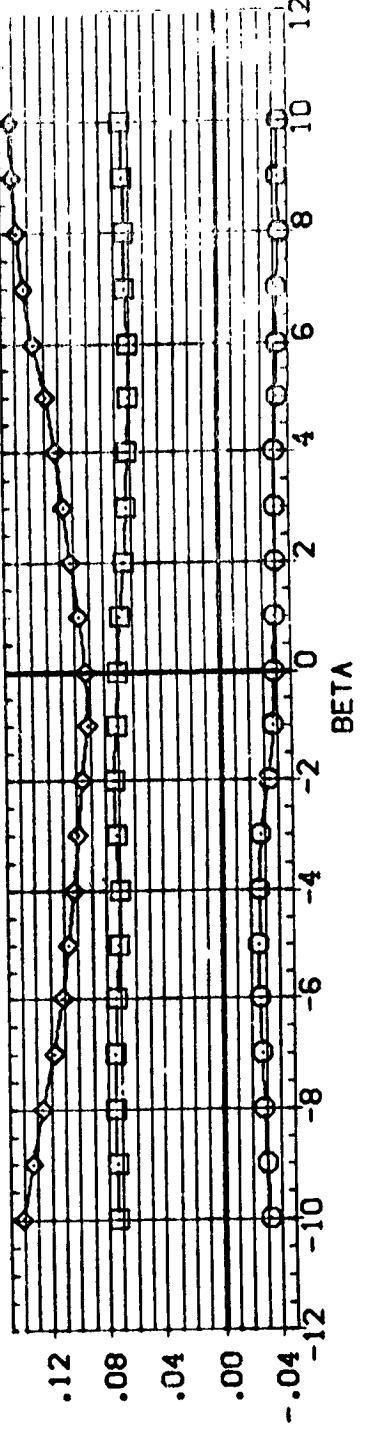
REFERENCE INFORMATION  
 SRPOS RN/L PT-JET ALPHA  
 1.100 1.400 1500.000 .000  
 2.200 1.400 1500.000 .000  
 3.300 1.400 1500.000 .000  
 SRREF LREF BREF XREF YREF ZREF  
 2690.000 2500.000 2500.000 1652.000 1652.000 447.000  
 2500.000 2500.000 2500.000 1652.000 1652.000 447.000  
 2500.000 2500.000 2500.000 1652.000 1652.000 447.000  
 SCALE .2100



Cn



CLM

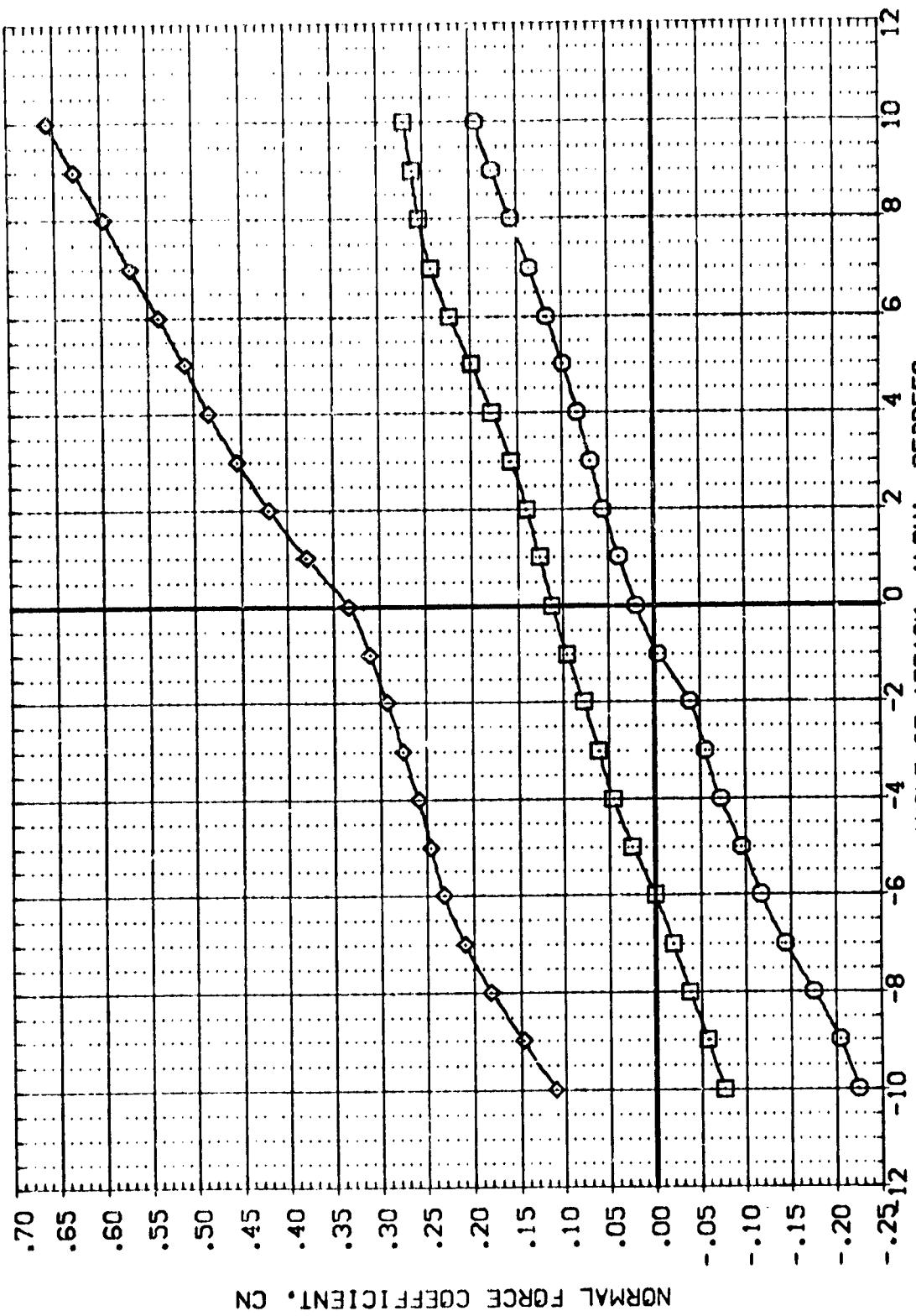


CA

EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHRACT. (RN/L=1.4)  
 $(\Delta MACH = 4.50)$

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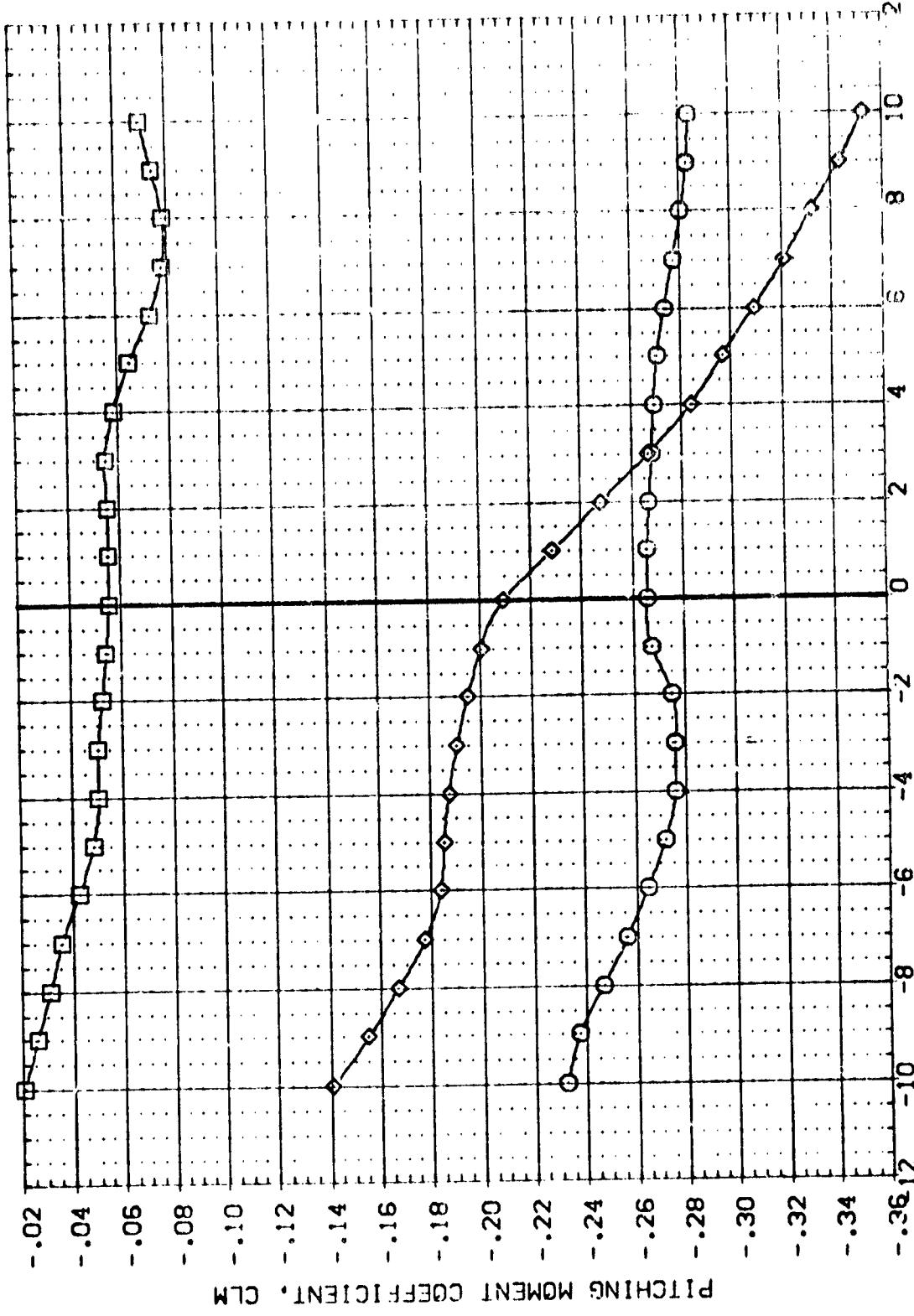
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL-238) AEDC VA-422(A-57), CRB/ET V/BOTH SRB  
 (RTL-239) AEDC VA-422(A-57), CRB/ET V/BOTH SRB  
 (RTL-240) AEDC VA-422(A-57), CRB/ET V/BOTH SRB



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76, PT-JEI=1500)  
 (MACH = 4.50)

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL038) AEDC VA-422(LA-57). ORB/ET V/BOTH SRB  
 (RTL049) AEDC VA-422(LA-57). ORB/ET V/BOTH SRB  
 (RTL060) AEDC VA-422(LA-57). ORB/ET V/BOTH SRB

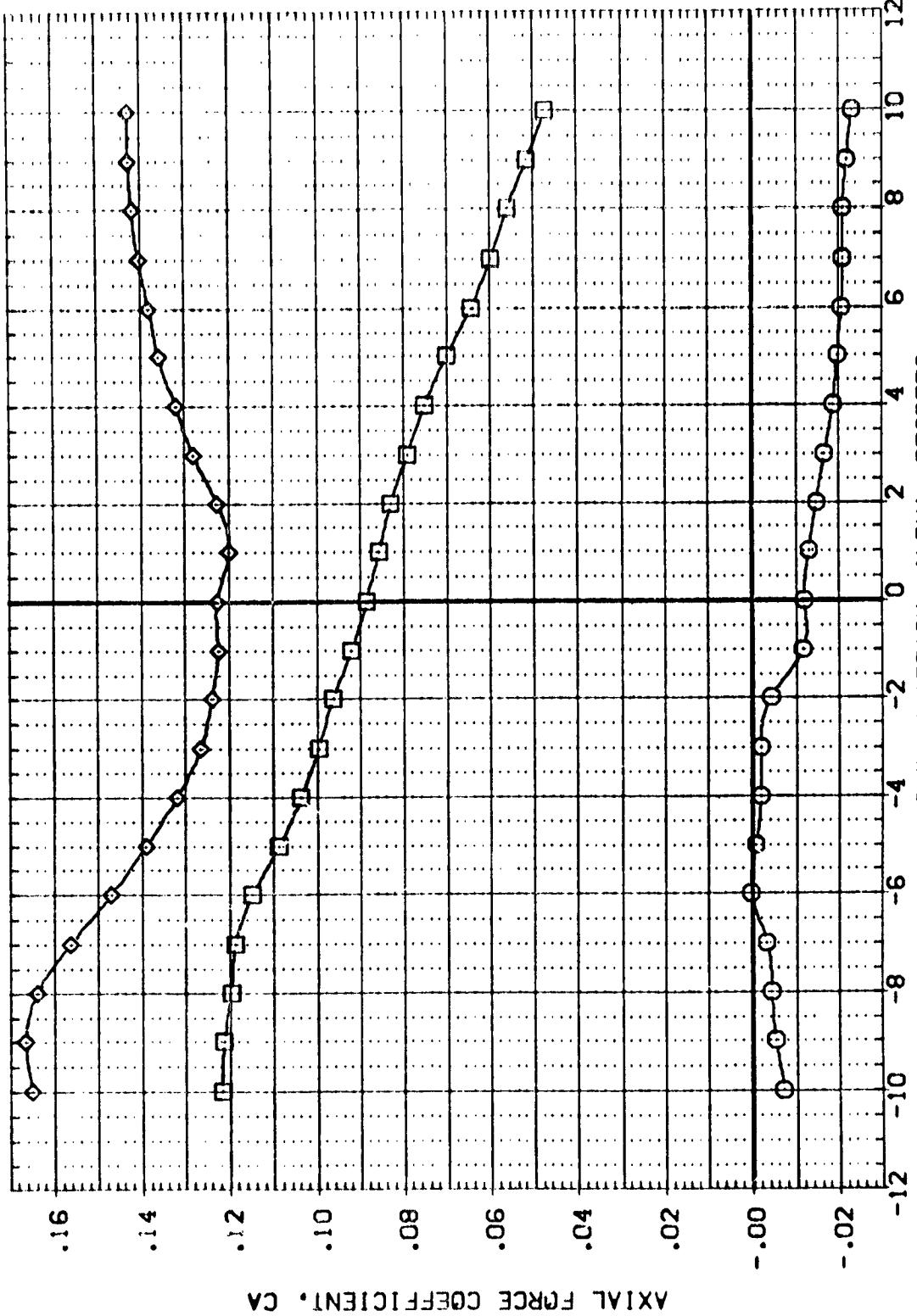
SRBPOS	RNL	PT- $\beta$ ET	BETA	REFERENCE INFORMATION
.1.100	1.760	1500.000	.000	SREF 2650.0000 SQ.FT.
.2.200	1.760	1500.000	.000	LREF 250.2000 IN.
.3.300	1.760	1500.000	.000	BREF 150.3000 IN.
				XREF .52.0000 IN.
				YREF .47.0000 IN.
				ZREF .21.00 IN.
				SCALE .21.00



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RNL=1.76, PT- $\beta$ ET=1500)  
 (A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRT-038 AEDC VA-422([A-57]) SRB/ET V/BOTH SRB  
 CRT-049 AEDC VA-422([A-57]) SRB/ET V/BOTH SRB  
 CRT-050 AEDC VA-422([A-57]) SRB/ET V/BOTH SRB

SRPOS RNL PT-JET BETA REFERENCE INFORMATION  
 1.100 1.760 1500.000 .000 SREF 2500.000 SQ.FT.  
 2.200 1.750 1500.000 .000 SREF 2500.000 SQ.FT.  
 3.300 1.760 1500.000 .000 SREF 2500.000 SQ.FT.  
 4.400 1.750 1500.000 .000 SREF 2500.000 SQ.FT.  
 5.500 1.760 1500.000 .000 SREF 2500.000 SQ.FT.  
 6.600 1.750 1500.000 .000 SREF 2500.000 SQ.FT.  
 7.700 1.760 1500.000 .000 SREF 2500.000 SQ.FT.  
 8.800 1.750 1500.000 .000 SREF 2500.000 SQ.FT.  
 9.900 1.760 1500.000 .000 SREF 2500.000 SQ.FT.  
 10.000 1.750 1500.000 .000 SREF 2500.000 SQ.FT.



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHART. (RN/L=1.76, PT-JET=1500)

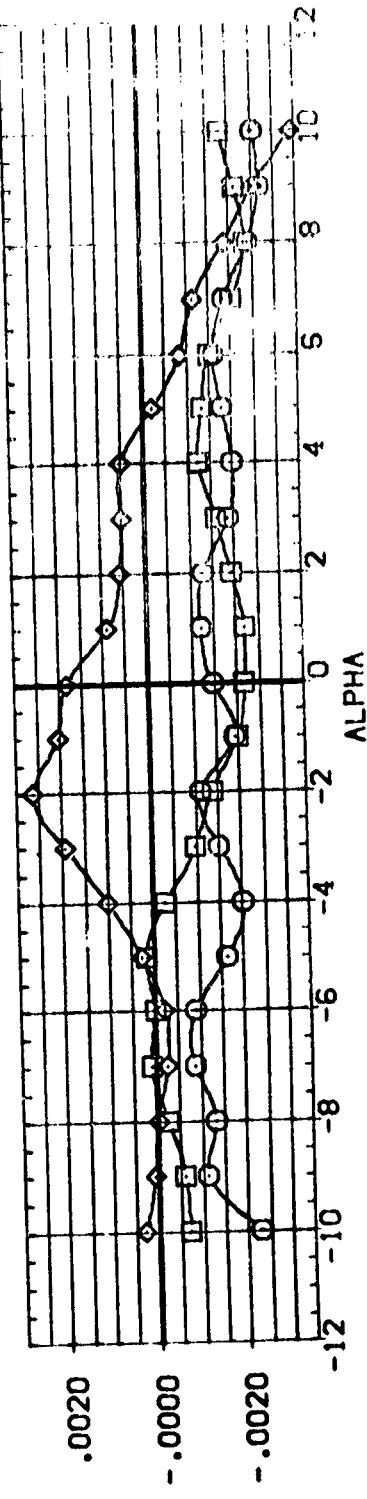
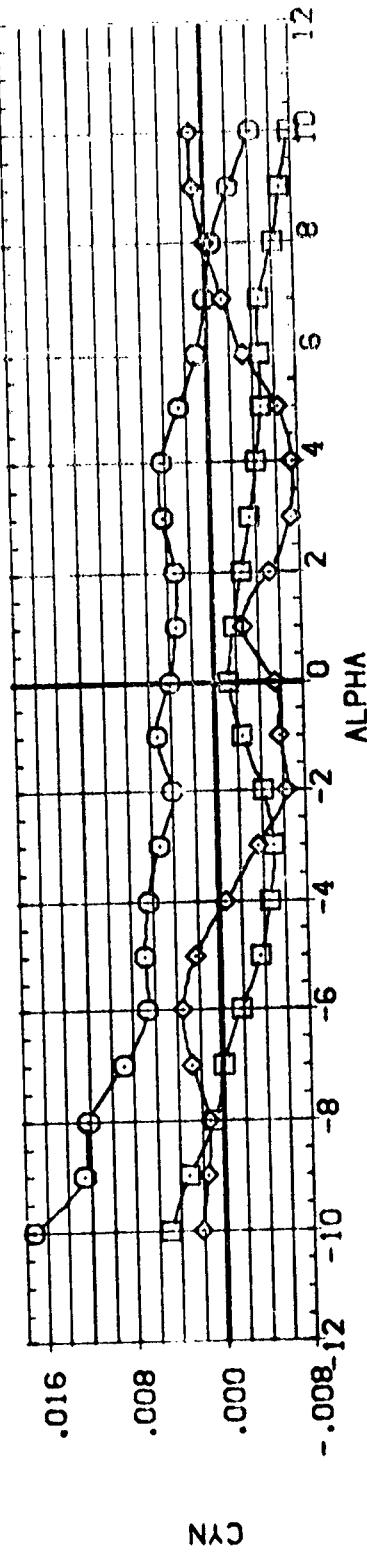
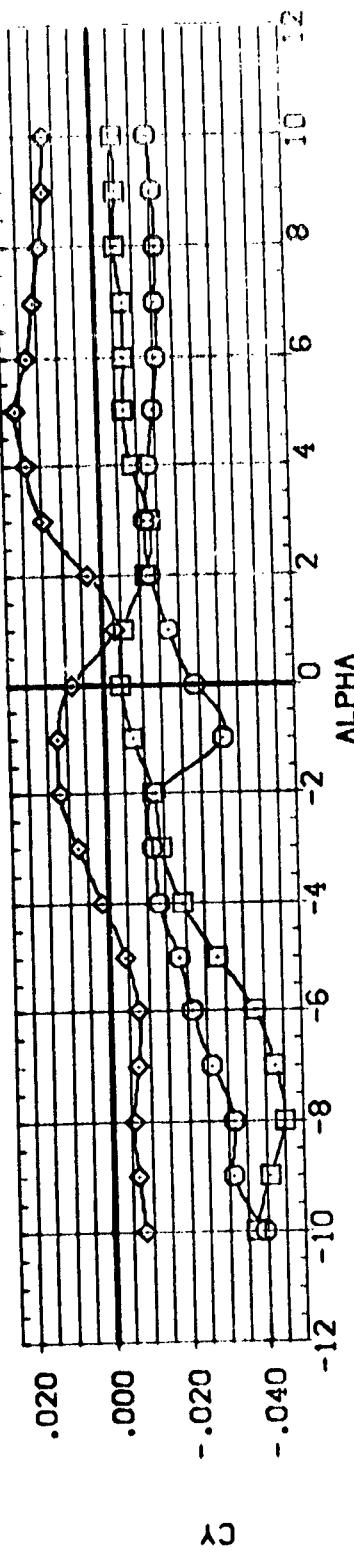
(A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL038)	AEDC VA-422(IA-57). CRB/ET V/BOTH SRB
(RTL049)	AEDC VA-422(IA-57). CRB/ET V/BOTH SRB
(RTL060)	AEDC VA-422(IA-57). CRB/ET V/BOTH SRB

SRBPOS RNL PT-JET BETA REFERENCE INFORMATION  
 1.100 .780 1500.000 .000 SREF 265.0000 SC.F.  
 1.200 .780 1500.000 .000 LREF 1250.3000 IN.  
 2.200 .780 1500.000 .000 BREF 1550.3000 X.  
 3.300 .780 1500.000 .000 YMP 1550.3000 Y.  
 ZMP 447.3000 Z.  
 SCALE .0100

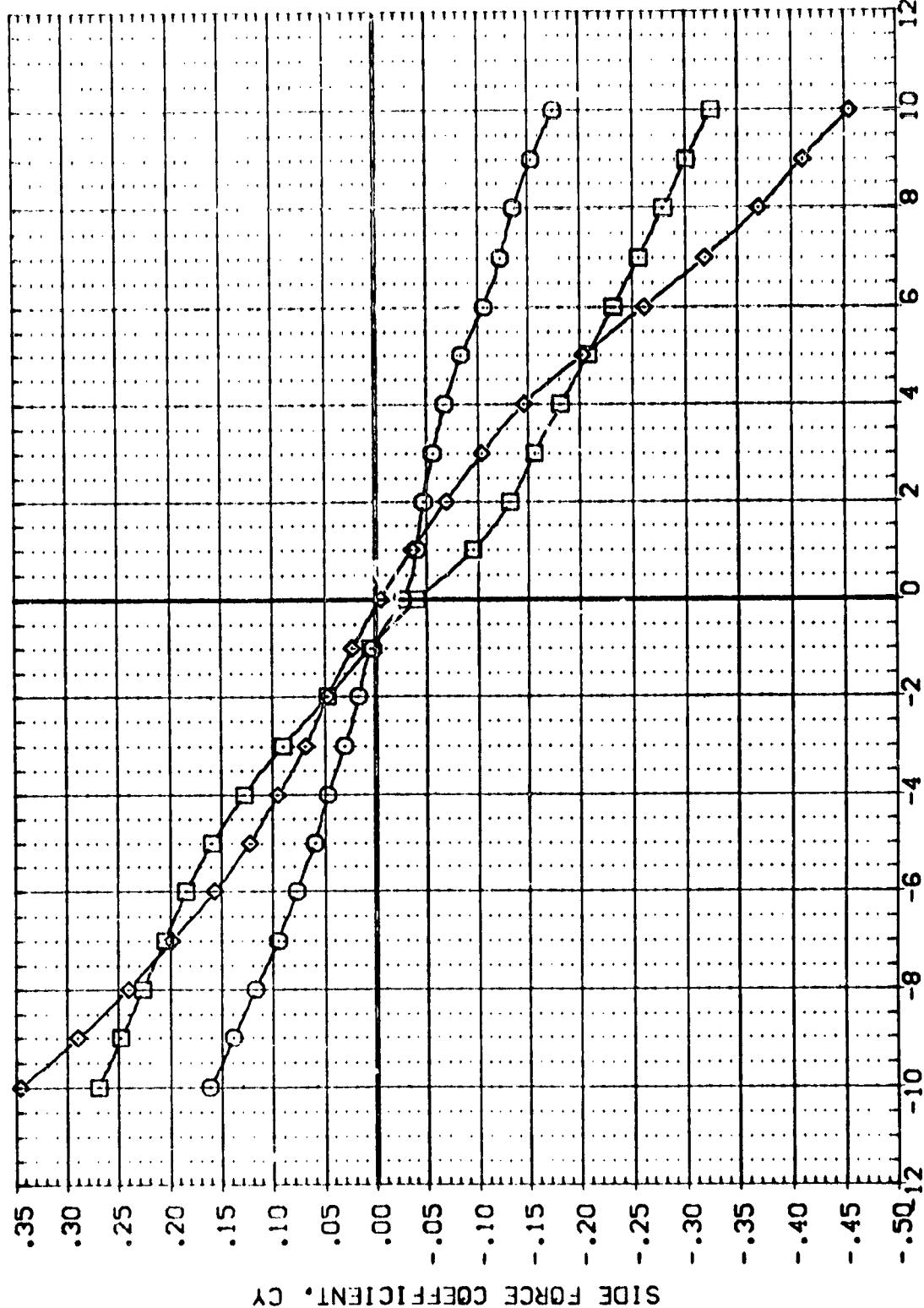


EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76, P-JET=1500)  
 $(\Delta)_{MACH} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RT-039)	AEDC	VA-422(A-57)	C8B/ET	V/BOTH	SRB
(RT-050)	AEDC	VA-422(A-57)	CR3/ET	V/BOTH	SRB
(RT-061)	AEDC	VA-422(A-57)	C8B/ET	V/BOTH	SRB

SIDESLIP RNL PT-JET ALPH<sub>A</sub> REFERENCE INFORMATION  
 Sideslip 1.100 1.760 1500.000 200 SRB 2500-3000 SQ.FT.  
 2.200 1.760 1500.000 200 LSE 2500-3000 IN.  
 3.300 1.760 1500.000 200 BRE 2500-3000 IN.  
 X- 200 Y- 200 Z- 200  
 200 44° 31.00  
 SCALE



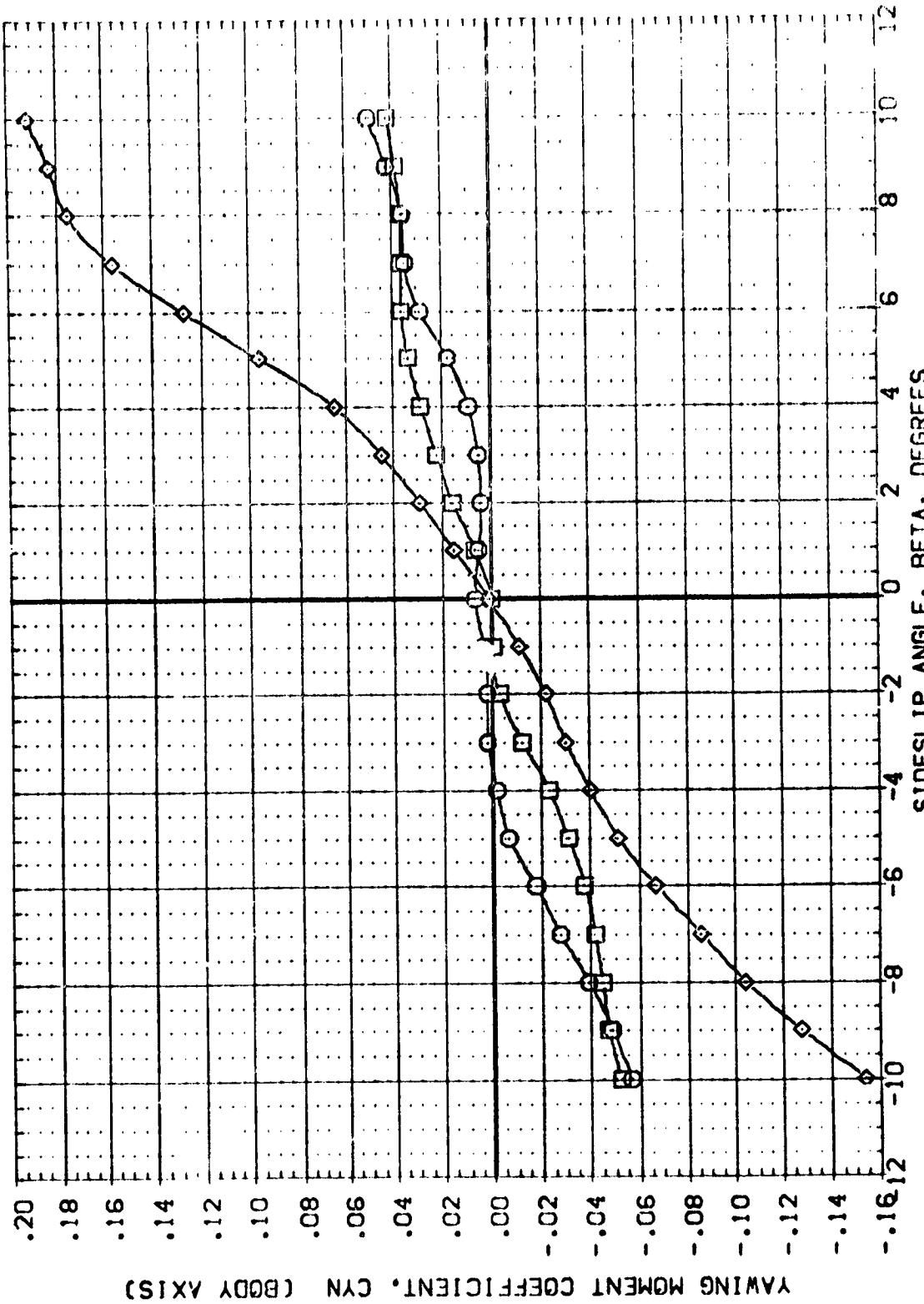
EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RNL=1.76, PT-JET=1500)

(A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL039) AEDC VA-422(A-57), GRB/ET V/BOTH SRB  
 (RT-050) AEDC VA-422(A-57), GRB/ET V/BOTH SRB  
 (RT-061) AEDC VA-422(A-57), GRB/ET V/BOTH SRB

SRBPOS ROLL PT-JET ALPHA REFERENCE INFORMATION  
 1.100 1.760 1500.000 SRF .2620 .DCD .50 FT.  
 2.200 1.760 1500.000 LRF .1280 .3CD .50 FT.  
 3.300 1.760 1500.000 SRF .1260 .3CD .50 FT.  
 XPOS YPOS ZPOS SCALE

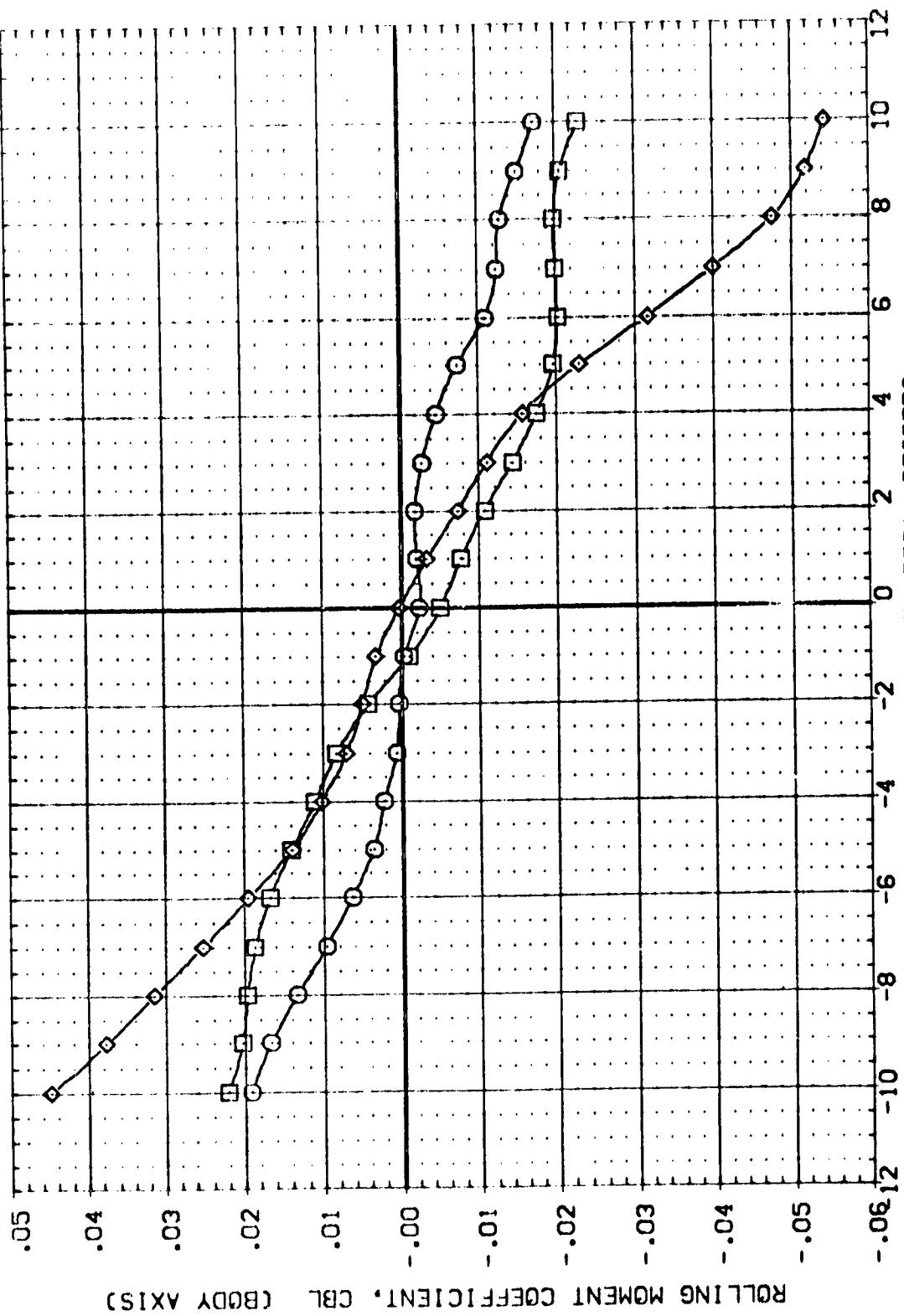


EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/ = 1, S, PT, SET = 150)  
 (A)MACH = 4.50

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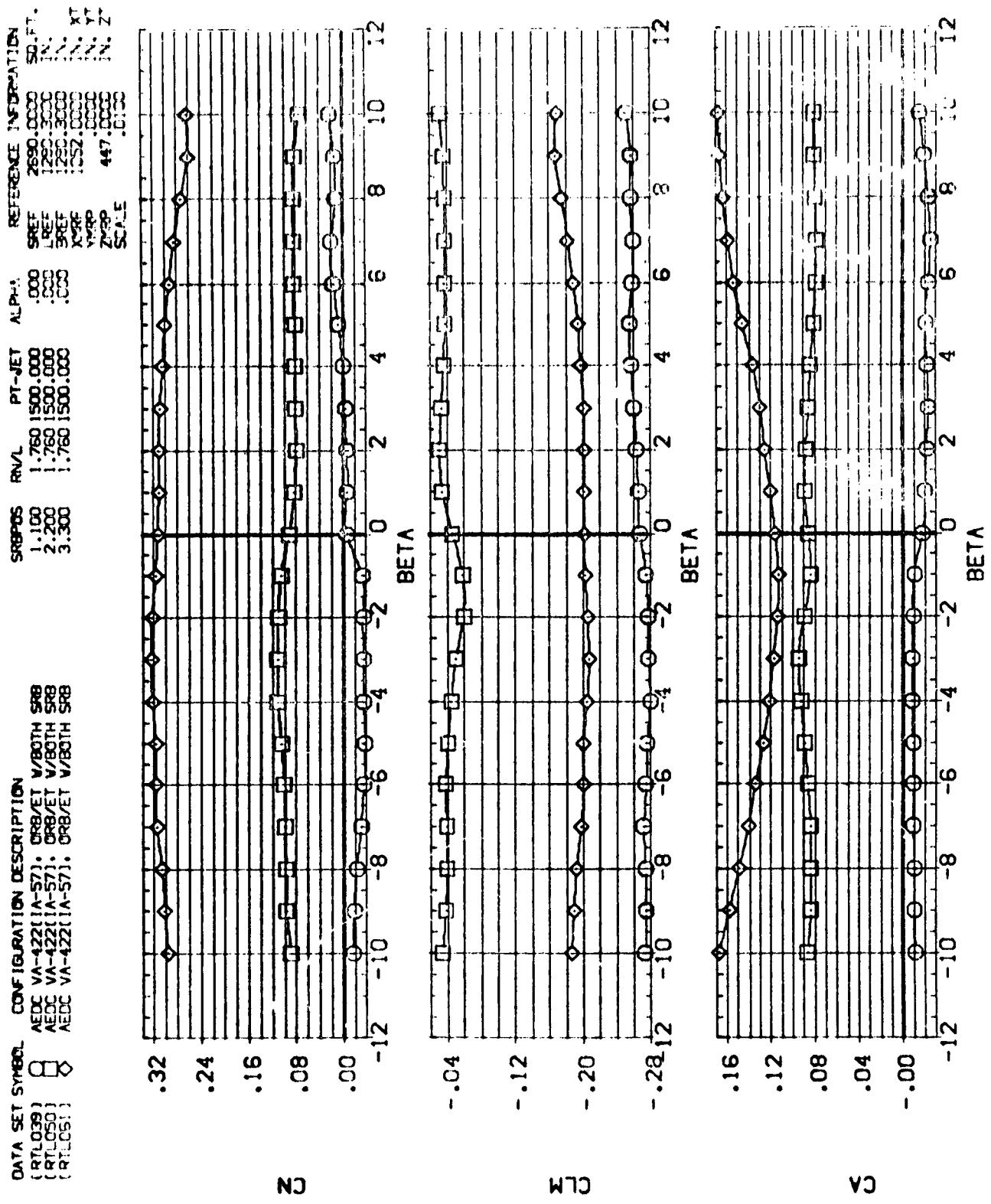
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [RTL039] AEDC VA-422[IA-57]. ORB/ET V/BOTH SRB  
 [RTL050] AEDC VA-422[IA-57]. ORB/ET V/BOTH SRB  
 [RTL061] AEDC VA-422[IA-57]. CRB/ET V/BOTH SRB

REFERENCE INFORMATION  
 SRBPOS RNL PT-JET ALPHA  
 1.100 1.760 1500.000 .000  
 2.200 1.760 1500.000 .000  
 3.300 1.760 1500.000 .000  
 SRBF XREF YREF ZREF  
 152.000 300.000 45.000  
 152.000 300.000 45.000  
 152.000 300.000 45.000  
 2MPP SCAL



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76, PT-JET=15000)  
 (A)MACH = 4.50

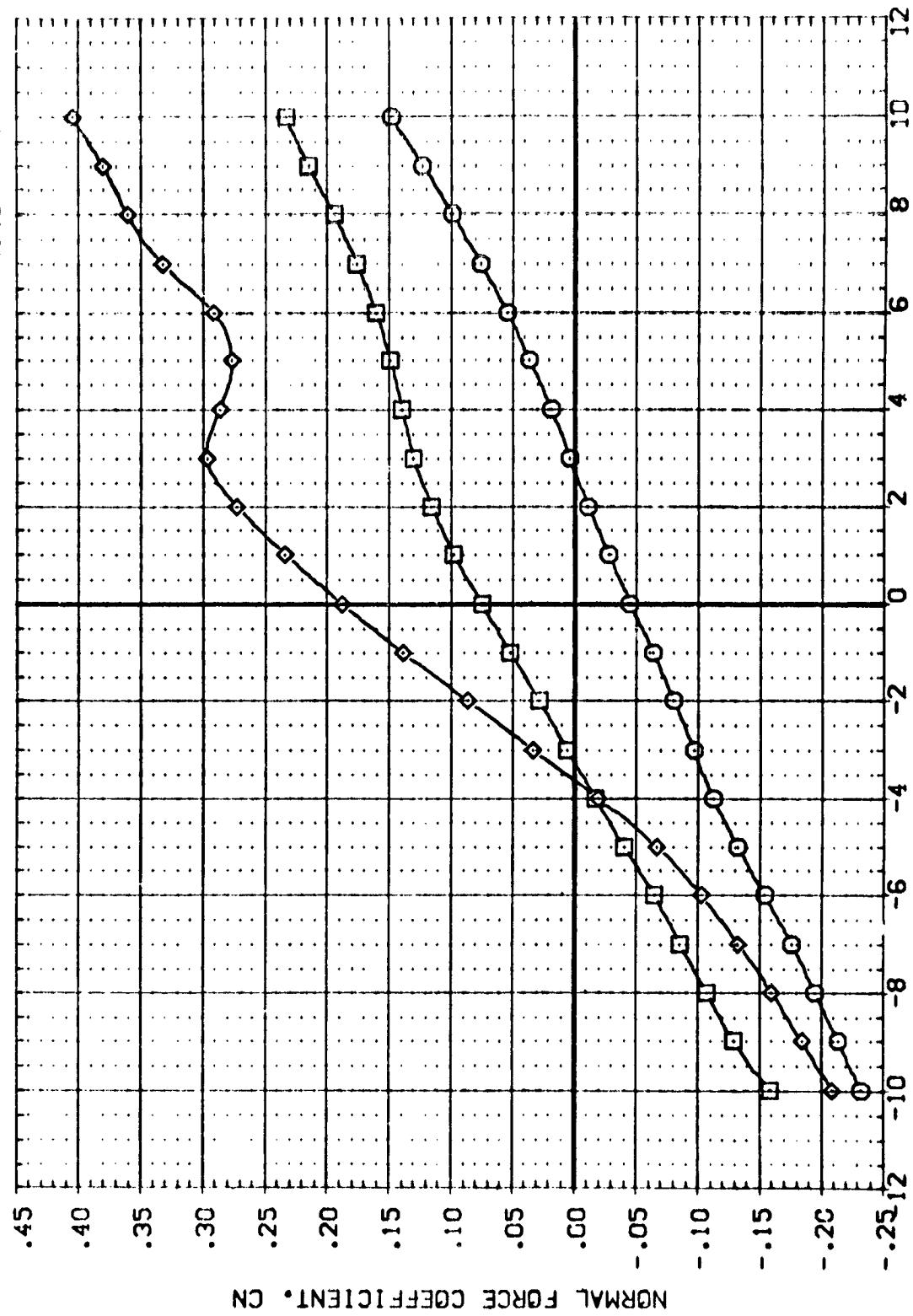
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLOG9) AEDC VA-4221[IA-57] ORB/ET V/BOTH SRB  
 (RTLOG0) AEDC VA-4221[IA-57] ORB/ET V/BOTH SRB  
 (RTLOG1) AEDC VA-4221[IA-57] ORB/ET V/BOTH SRB



EFFECT OF SYMMETRICAL SRB SEPARATION ON  $C_2$ ,  $C_{LM}$ ,  $C_A$  (RN/L=1.76, PT-JET=1500)  
 $(\text{CA})_{\text{MACH}} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RT-036) AEDC VA-222(IA-57), ORB/ET V/BOTH SRB  
 (RT-047) AEDC VA-222(IA-57), ORB/ET V/BOTH SRB  
 (RT-058) AEDC VA-422(IA-57), ORB/ET V/BOTH SRB

SRBPOS	RNL	PT-JET	BETA	REFERENCE INFORMATION
1.100	1.760	750.000	.000	SREF .2550 .0000 SC.FT.
2.200	1.760	750.000	.000	SREF .1250 .3000 INCH
3.300	1.760	750.000	.000	SREF .3000 .2500 INCH
				XREF .1552 .1552 INCH
				TURB .45 .1552 INCH
				SCALE .45 .1552 INCH



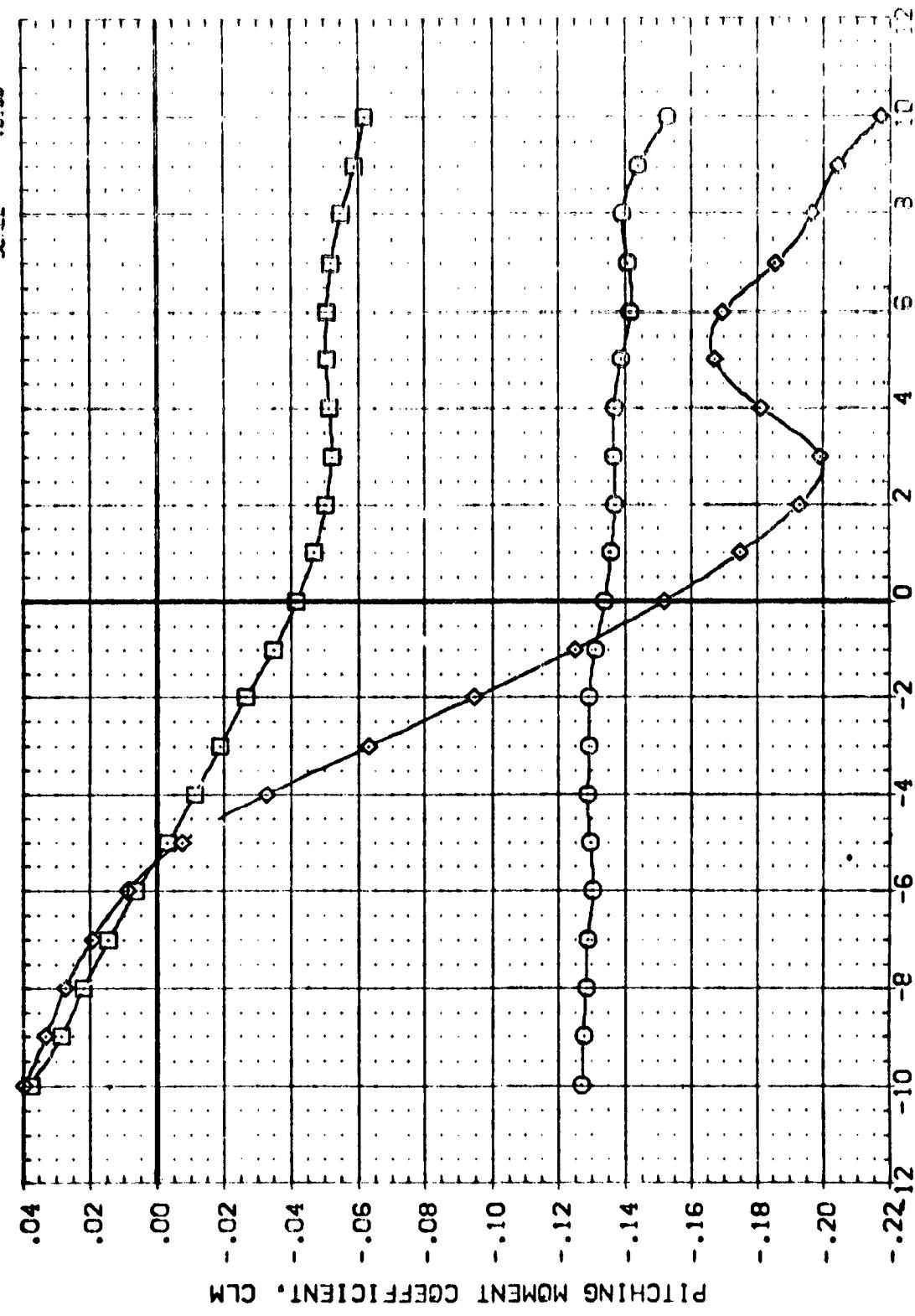
EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RNL 1.76. PT-JET=750)

(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL036)	□	AEDC VA-422 [IA-57], SRB/ET V/BOTH SRB
(RTL047)	○	AEDC VA-422 [IA-57], SRB/ET V/BOTH SRB
(RTL058)	△	AEDC VA-422 [IA-57], ORB/ET V/BOTH SRB

REF SPEED MACH 1.100 1.750 2.200 3.300  
 REF ALTITUDE FT 2650 3000 3200 3500  
 LREF 1200 1250 1300 1350  
 RREF 1250 1300 1350 1400  
 XREF 1300 1350 1400 1450  
 YREF 1350 1400 1450 1500  
 ZREF 447 500 550 600  
 SCALING 1.000 1.000 1.000 1.000

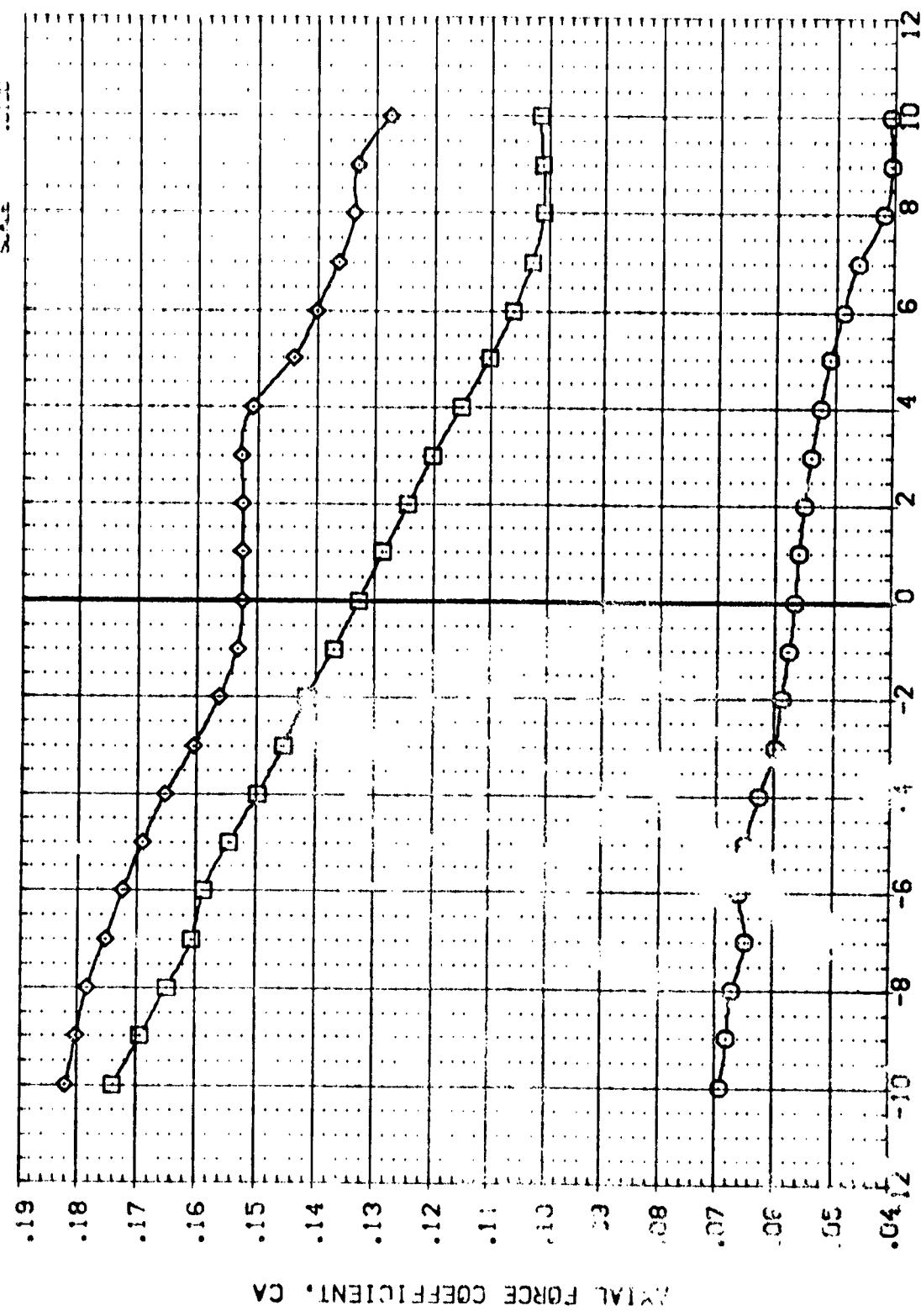


EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (P/N/A = 1.75, P/MACH = 4.50)  
 (A)MACH = 4.50

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[PT-036]	AEDC VA-4221(A-571)
[PT-044]	AEDC VA-4221(A-571)
[PT-058]	AEDC VA-4221(A-571)
[PT-059]	AEDC VA-4221(A-571)

STEPS	RNL	PT-JET	BETA	REFERENCE INFORMATION
1.1.00	.750	.750	.000	SC-1
1.2.00	.750	.750	.000	SC-2
1.3.00	.750	.750	.000	SC-3
1.4.00	.750	.750	.000	SC-4
1.5.00	.750	.750	.000	SC-5
1.6.00	.750	.750	.000	SC-6
1.7.00	.750	.750	.000	SC-7
1.8.00	.750	.750	.000	SC-8
1.9.00	.750	.750	.000	SC-9
1.10.00	.750	.750	.000	SC-10
1.11.00	.750	.750	.000	SC-11
1.12.00	.750	.750	.000	SC-12
1.13.00	.750	.750	.000	SC-13
1.14.00	.750	.750	.000	SC-14
1.15.00	.750	.750	.000	SC-15
1.16.00	.750	.750	.000	SC-16
1.17.00	.750	.750	.000	SC-17
1.18.00	.750	.750	.000	SC-18
1.19.00	.750	.750	.000	SC-19
1.20.00	.750	.750	.000	SC-20
1.21.00	.750	.750	.000	SC-21
1.22.00	.750	.750	.000	SC-22
1.23.00	.750	.750	.000	SC-23
1.24.00	.750	.750	.000	SC-24
1.25.00	.750	.750	.000	SC-25
1.26.00	.750	.750	.000	SC-26
1.27.00	.750	.750	.000	SC-27
1.28.00	.750	.750	.000	SC-28
1.29.00	.750	.750	.000	SC-29
1.30.00	.750	.750	.000	SC-30
1.31.00	.750	.750	.000	SC-31
1.32.00	.750	.750	.000	SC-32
1.33.00	.750	.750	.000	SC-33
1.34.00	.750	.750	.000	SC-34
1.35.00	.750	.750	.000	SC-35
1.36.00	.750	.750	.000	SC-36
1.37.00	.750	.750	.000	SC-37
1.38.00	.750	.750	.000	SC-38
1.39.00	.750	.750	.000	SC-39
1.40.00	.750	.750	.000	SC-40
1.41.00	.750	.750	.000	SC-41
1.42.00	.750	.750	.000	SC-42
1.43.00	.750	.750	.000	SC-43
1.44.00	.750	.750	.000	SC-44
1.45.00	.750	.750	.000	SC-45
1.46.00	.750	.750	.000	SC-46
1.47.00	.750	.750	.000	SC-47
1.48.00	.750	.750	.000	SC-48
1.49.00	.750	.750	.000	SC-49
1.50.00	.750	.750	.000	SC-50
1.51.00	.750	.750	.000	SC-51
1.52.00	.750	.750	.000	SC-52
1.53.00	.750	.750	.000	SC-53
1.54.00	.750	.750	.000	SC-54
1.55.00	.750	.750	.000	SC-55
1.56.00	.750	.750	.000	SC-56
1.57.00	.750	.750	.000	SC-57
1.58.00	.750	.750	.000	SC-58
1.59.00	.750	.750	.000	SC-59
1.60.00	.750	.750	.000	SC-60
1.61.00	.750	.750	.000	SC-61
1.62.00	.750	.750	.000	SC-62
1.63.00	.750	.750	.000	SC-63
1.64.00	.750	.750	.000	SC-64
1.65.00	.750	.750	.000	SC-65
1.66.00	.750	.750	.000	SC-66
1.67.00	.750	.750	.000	SC-67
1.68.00	.750	.750	.000	SC-68
1.69.00	.750	.750	.000	SC-69
1.70.00	.750	.750	.000	SC-70
1.71.00	.750	.750	.000	SC-71
1.72.00	.750	.750	.000	SC-72
1.73.00	.750	.750	.000	SC-73
1.74.00	.750	.750	.000	SC-74
1.75.00	.750	.750	.000	SC-75
1.76.00	.750	.750	.000	SC-76
1.77.00	.750	.750	.000	SC-77
1.78.00	.750	.750	.000	SC-78
1.79.00	.750	.750	.000	SC-79
1.80.00	.750	.750	.000	SC-80
1.81.00	.750	.750	.000	SC-81
1.82.00	.750	.750	.000	SC-82
1.83.00	.750	.750	.000	SC-83
1.84.00	.750	.750	.000	SC-84
1.85.00	.750	.750	.000	SC-85
1.86.00	.750	.750	.000	SC-86
1.87.00	.750	.750	.000	SC-87
1.88.00	.750	.750	.000	SC-88
1.89.00	.750	.750	.000	SC-89
1.90.00	.750	.750	.000	SC-90
1.91.00	.750	.750	.000	SC-91
1.92.00	.750	.750	.000	SC-92
1.93.00	.750	.750	.000	SC-93
1.94.00	.750	.750	.000	SC-94
1.95.00	.750	.750	.000	SC-95
1.96.00	.750	.750	.000	SC-96
1.97.00	.750	.750	.000	SC-97
1.98.00	.750	.750	.000	SC-98
1.99.00	.750	.750	.000	SC-99
1.100.00	.750	.750	.000	SC-100

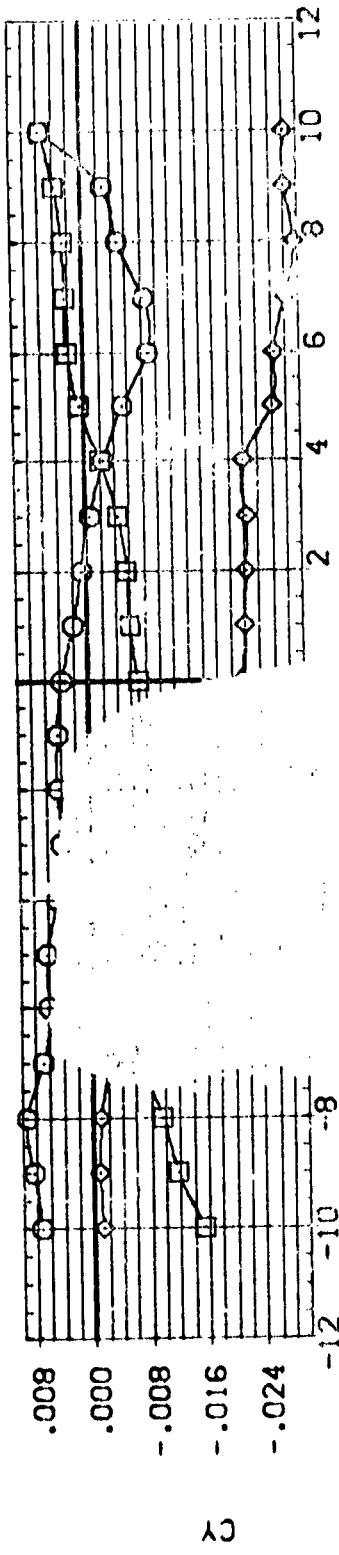


EFFECT OF SYMMETRICAL SRB SIZE SECTION ON 0/ET CHARACT. (RN/L=1.76, PT-JET=750) PAGE 3  
(A)<sub>MACH</sub> = .50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL036)	AEDC VA-422(IA-57), ORB/ET V/BOTH SRB
(RTL047)	AEDC VA-422(IA-57), ORB/ET V/BOTH SRB
(RT_LCS9)	AEDC VA-422(IA-57), ORB/ET V/BOTH SRB

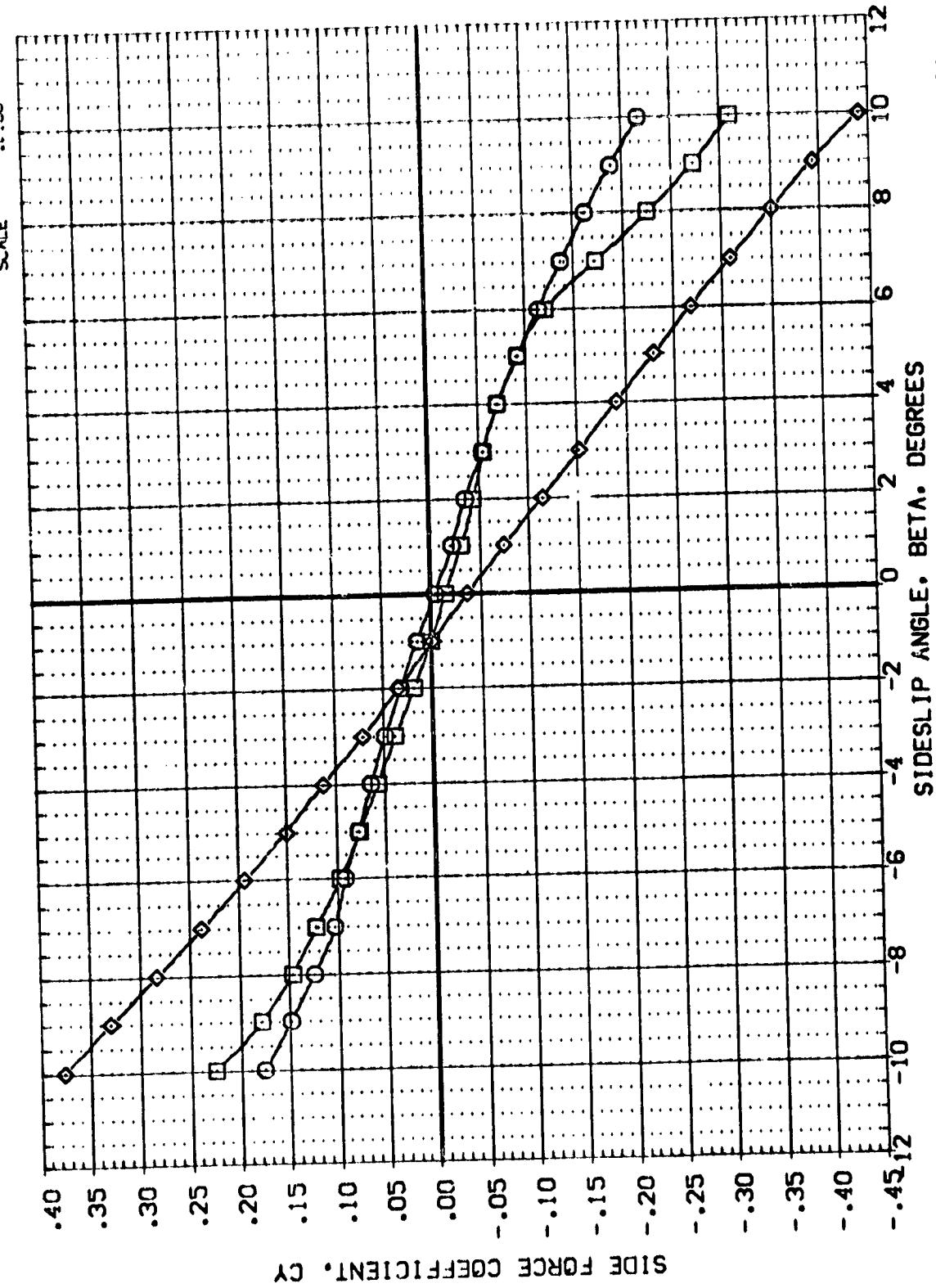
SRBPOS R<sub>X</sub> PT-JET BETA SREF LREF BREF X<sub>SP</sub> Y<sub>SP</sub> Z<sub>SP</sub> REFERENCE INFORMATION  
 1.100 .750,000 .000 2690,000 SQ.FT.  
 2.200 .750,000 .000 280,000  
 3.300 .750,000 .000 1552,000  
 SC-E 447,000,000  
 27



EFFECT OF SYMMETRICAL SRB SEPARATION ON Cx, Cy, CBL  
 (MACH = 4.50) R/N/L=1.76, P<sub>J</sub>/JET=750  
 PAGE 32

DATA SET SWEEPS CONFIGURATION DESCRIPTION  
 [CRTL037] AEDC VA-422[IA-57]; CRB/ET V/BETW SRB  
 [CRTL038] AEDC VA-422[IA-57]; CRB/ET V/BO/H SRB  
 [CRTL039] AEDC VA-422[IA-57]; C3B/ET V/BOTH SRB

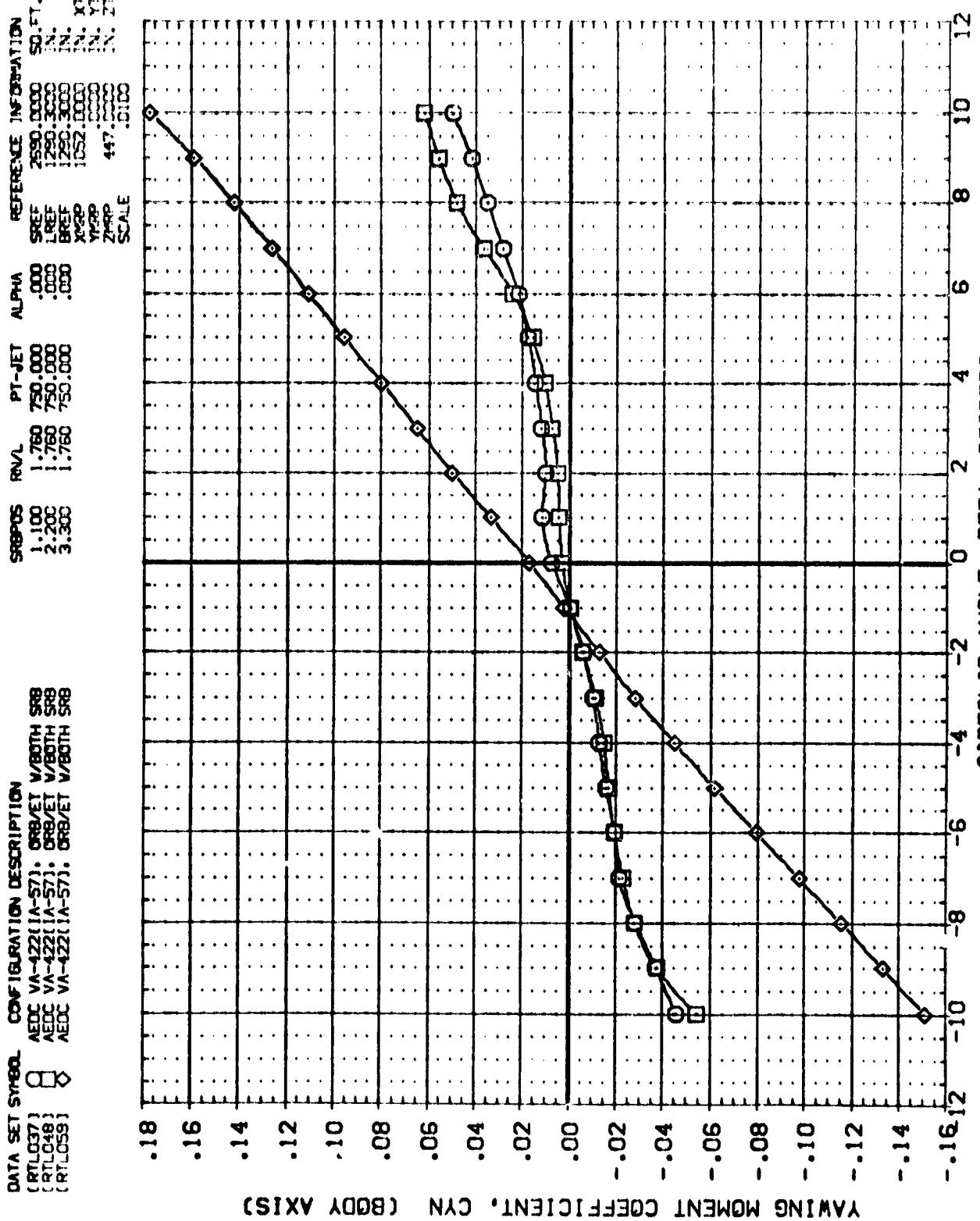
SREFS SREF LREF BREF ANG YAW Z-UP  
 1.15 .760 750,000 .000  
 2.20 .760 750,000 .000  
 3.30 .760 750,000 .000  
 4.47 .760 750,000 .000



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76, PT-JET=750)  
 (A)MACH = 4.50  
 PAGE 33

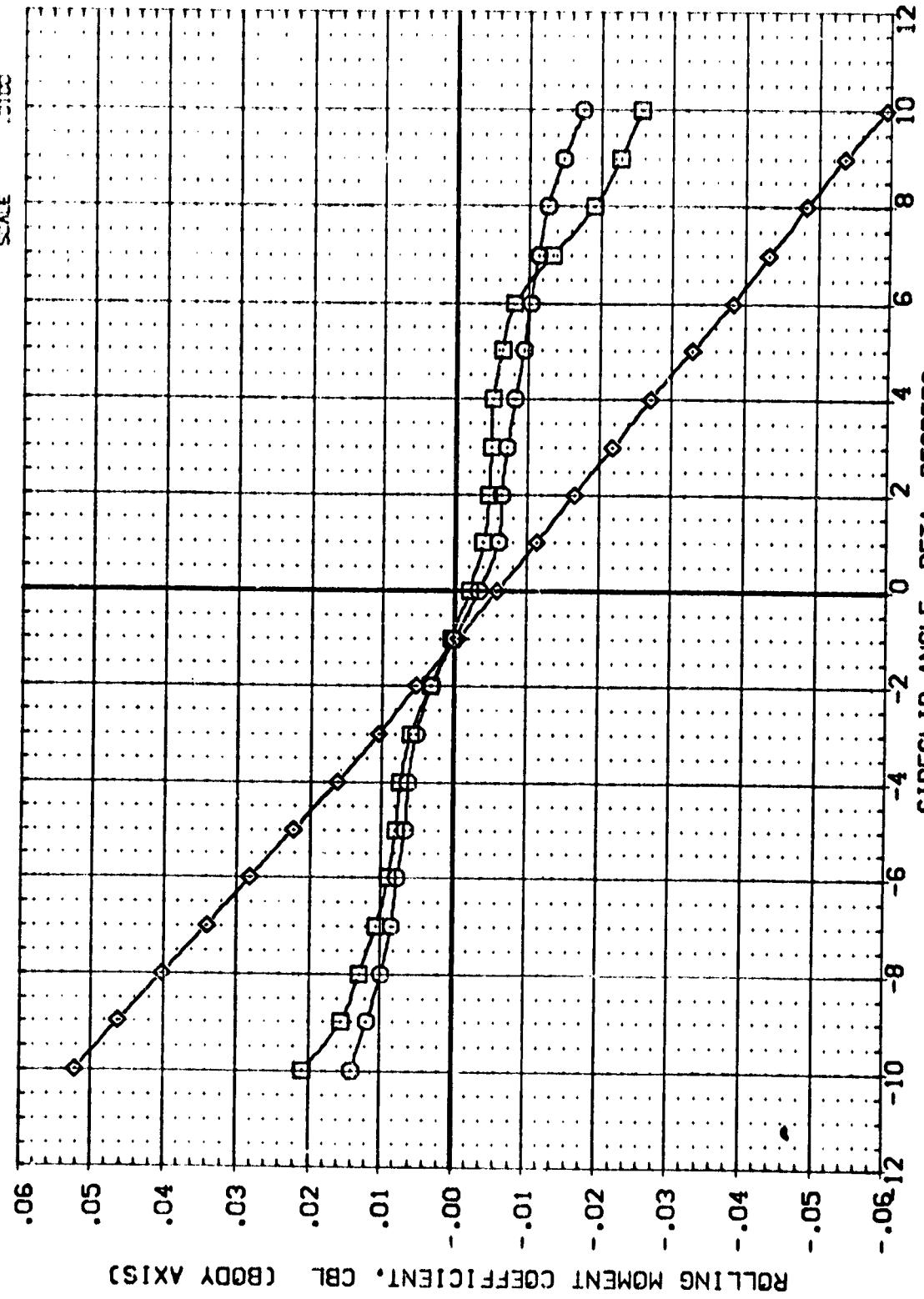
DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RTL037]	AEDC	VA-422([A-57])	GRB/JET	V/BOTH	SRB
[RTL048]	AEDC	VA-422([A-57])	GRB/JET	V/BOTH	SRB
[RTL059]	AEDC	VA-422([A-57])	GRB/JET	V/BOTH	SRB



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [RTL037] AEDC VA-422(A-57) SRB  
 [RTL048] AEDC VA-422(A-57) SRB/ET  
 [RTL059] AEDC VA-422(A-57) SRB/ET V/BOTH SRB

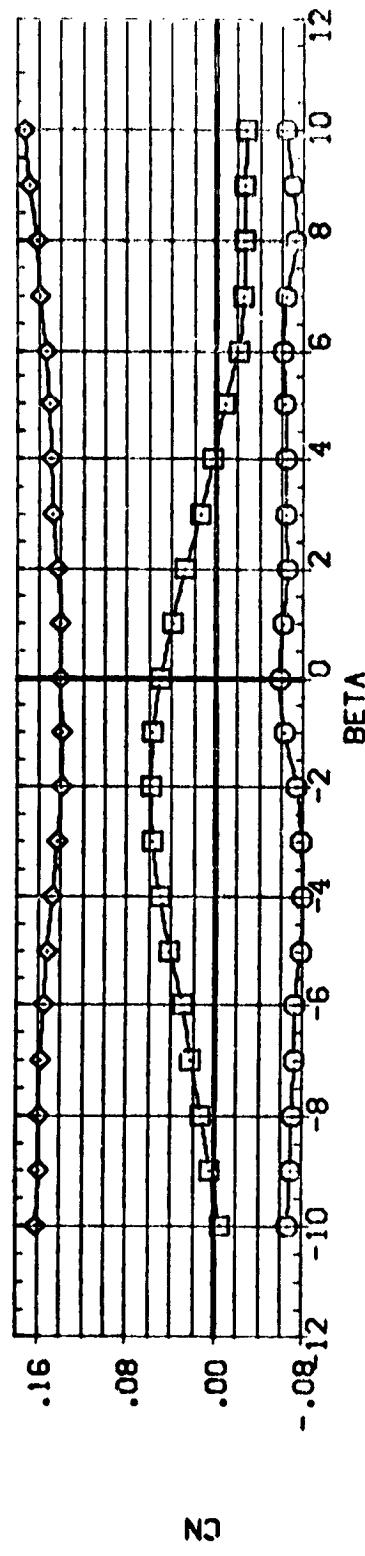
REF. 2680.2000 SQ.F.  
 LREF 1250.3000 IN.  
 BREF 1250.3000 IN.  
 XRP 152.0000 IN.  
 YRP 447.3000 IN.  
 ZRP 447.3000 IN.  
 SCALE



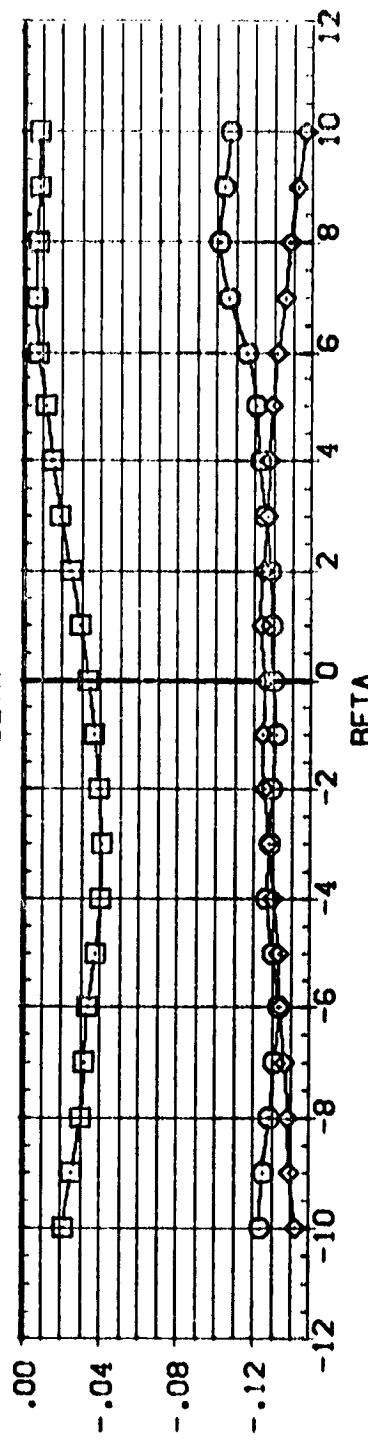
EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/EIT CHARACT. (CRN/L=1.76, PT-JET=750)  
 (A)MACH = 4.50

DATA SET NAME: CONFIGURATION DESCRIPTION  
 [RTLC57] C AEDC VA-422(A-57) : OBJSR V/BOTH SRB  
 [RTLC48] D AEDC VA-422(A-57) : GBJET V/BOTH SRB  
 [RTLC59] E AEDC VA-422(A-57) : GBJET V/BOTH SRB

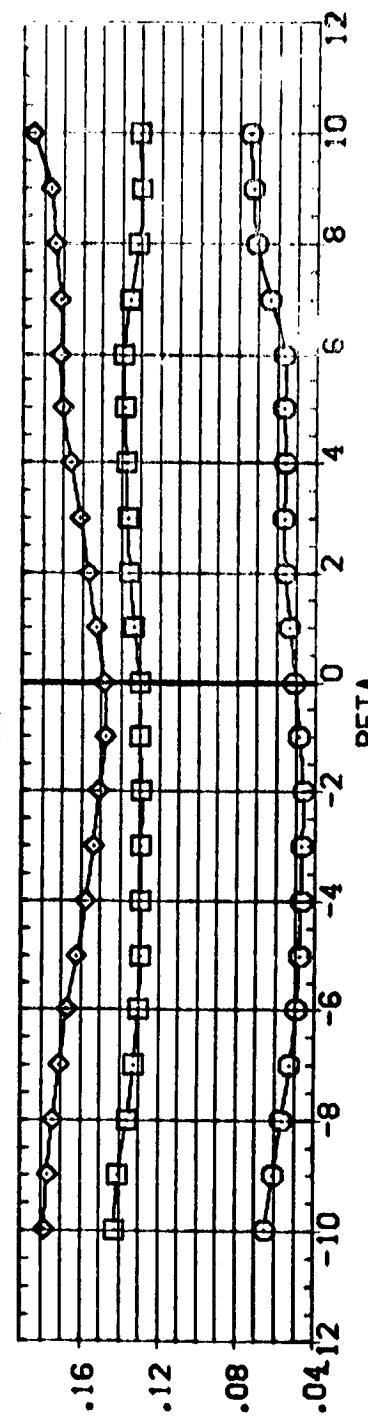
SERPOS RNL/ L PI-JET ALPHA DIFFERENCE IN SEPARATION  
 1.100 .750 750.000 .000 SPEC  
 2.200 .750 750.000 .000 REF  
 3.300 .750 750.000 .000 XPP  
 YPP 447.511  
 ZPP 447.511  
 SCALE



$C_z$



$C_{lm}$

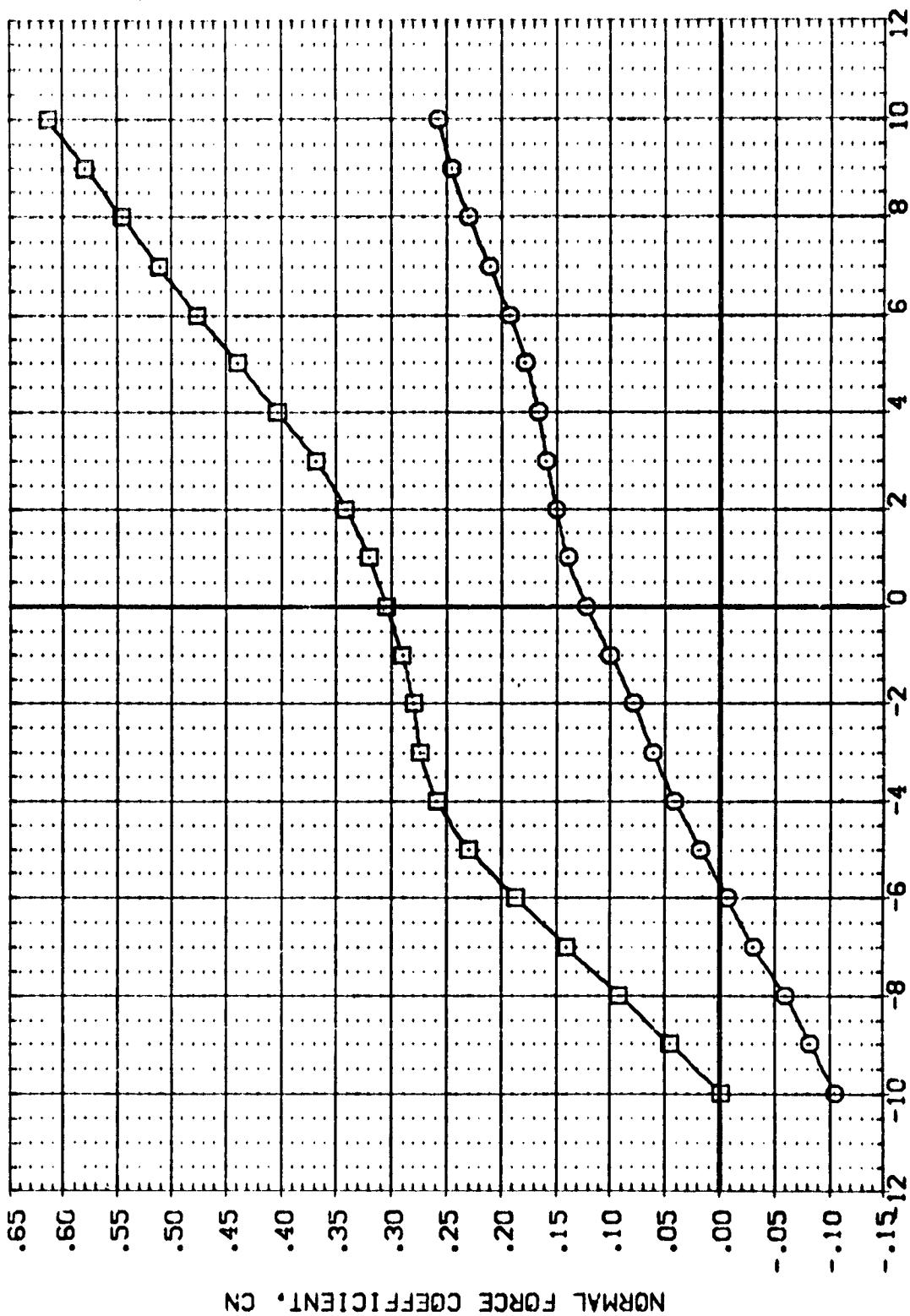


$C_a$

EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RNL/L=1.76, PI-JET=75°)  
 $(\Delta)MACH = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLOS1) AEDC VA-422(A-57). CRB/ET V/BCTH SRB  
 (RTLO52) AEDC VA-422(A-57). CRB/ET V/BCTH SRB

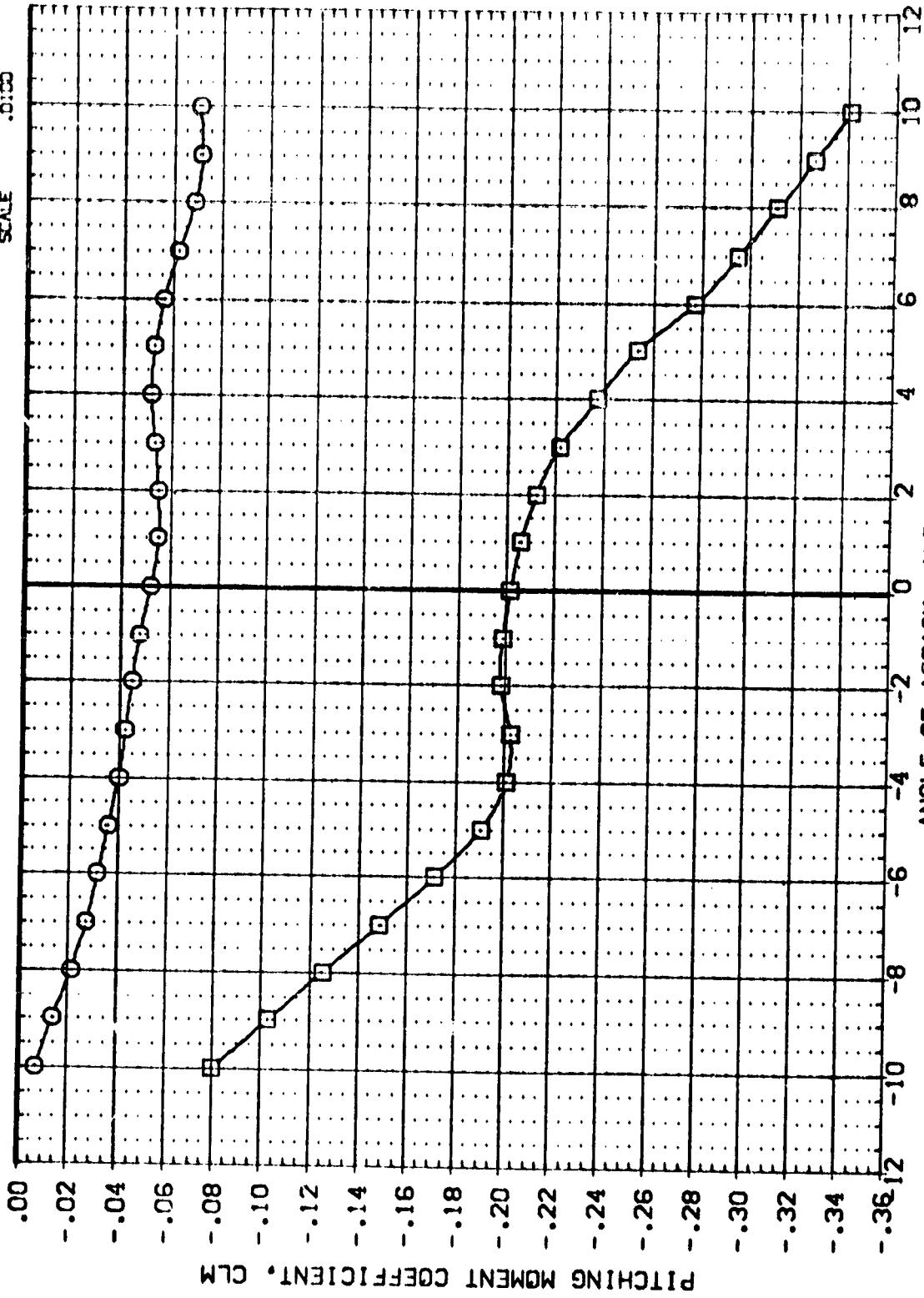
REFERENCE INFORMATION	
SRBPOS	RNL
2.200	2.080 1500.000
3.300	2.080 1500.000
	.000
	SPRF
	LREF
	BREF
	X <sub>1</sub>
	1280.3000
	Y <sub>1</sub>
	1552.0000
	Z <sub>1</sub>
	447.0000
	SCALE
	.27



EFFECT OF SYMMETRICAL SRB SEPARATION ON O/ET CHARRCT. (RN/L=2.08)  
 (A)MACH = 4.50

DATA SET SYMBOL: 8  
 (RTL01) AEDC VA-422 (IA-57). GREAT V/20TH SRB  
 (RTL02) AEDC VA-422 (IA-57). GREAT V/20TH SRB

SRBOS	REV.L	PT-JET	BETA	REFERENCE INFORMATION
2.200	2.080	1500.000	.000	SREF 2690.0000 SC.FT.
3.300	2.080	1500.000	.000	LREF 1250.3000 IN.
				BREF 1250.3000 IN.
				XSRP 1052.0000 IN. XT
				YSRP .0000 IN. YT
				ZSRP 447.3000 IN. ZT
				SCALE .0100

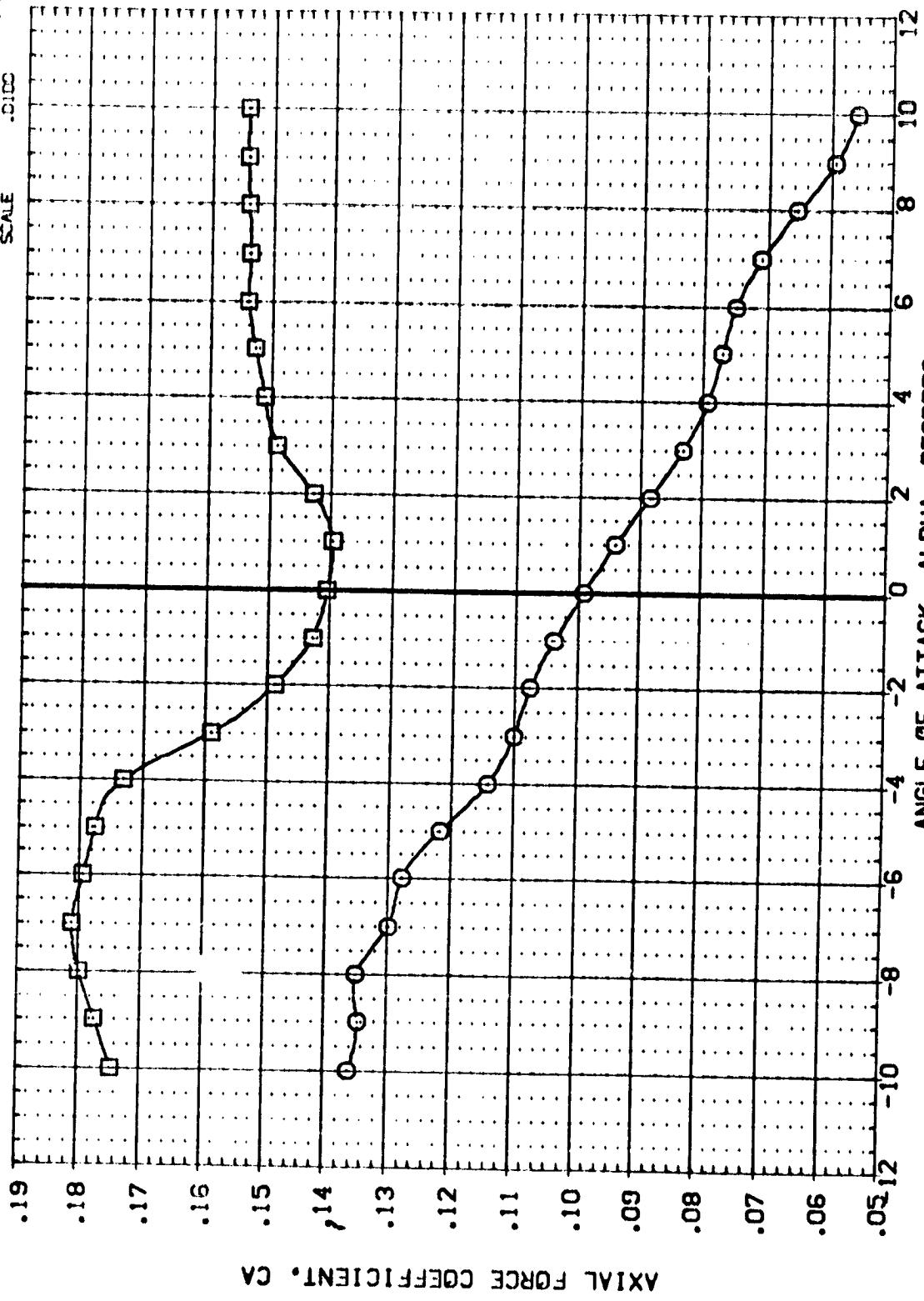


EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=2.38);  
 (A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLOS1) AEDC VA-422(IA-57). GRB/ET V/BOTH SRB  
 (RTLOS2) AEDC VA-422(IA-57). GRB/ET V/BOTH SRB

SRBPOS RNL PT-JET BETA REFERENCE INFORMATION  
 2.200 2.080 1500.000 .000 SREF 2650.000 SC.FT.  
 3.300 2.080 1500.000 .000 LREF 1250.300 IN.  
 XREF 1052.000 IN.  
 YREF .0000 IN.  
 ZREF 447.0000 IN.  
 SCALE .3162

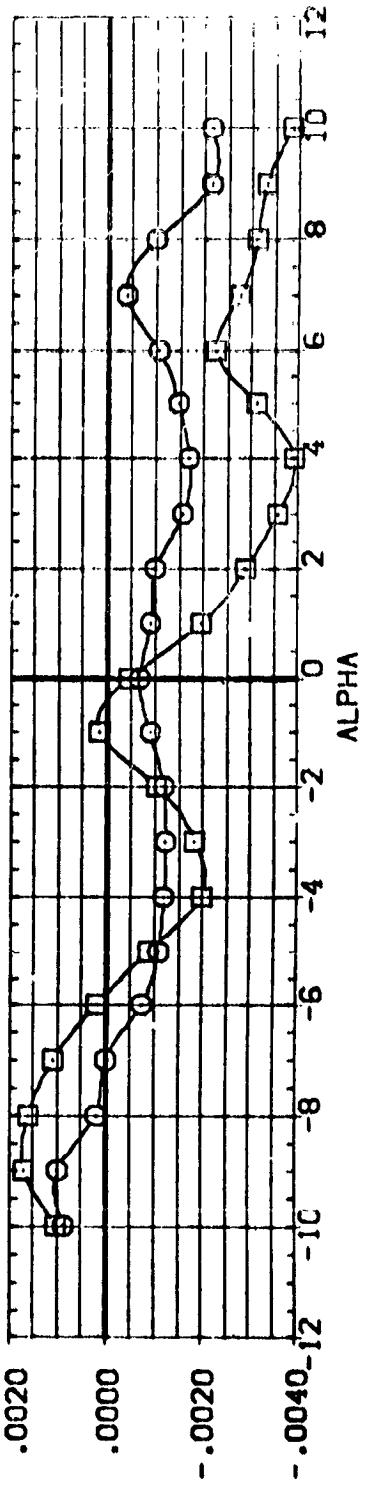
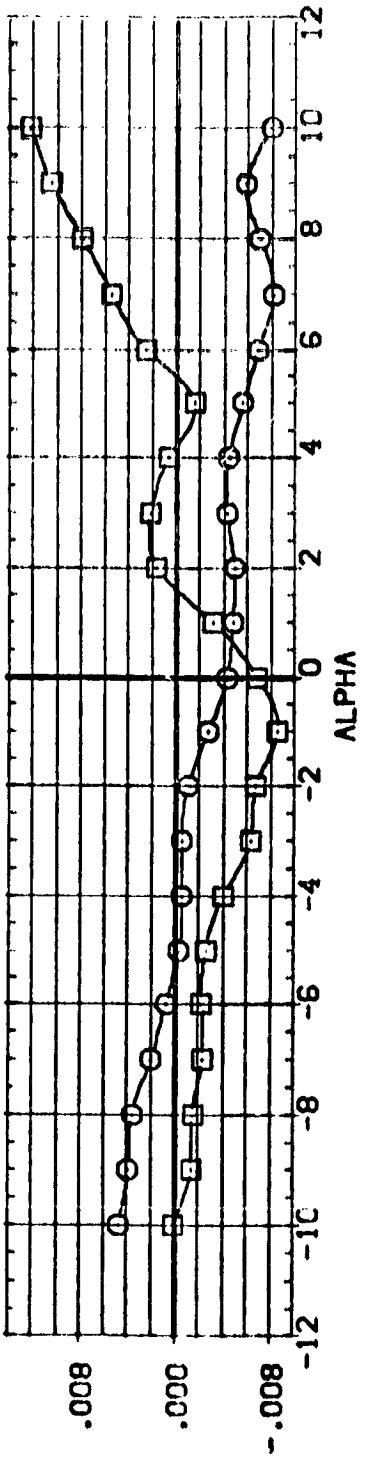
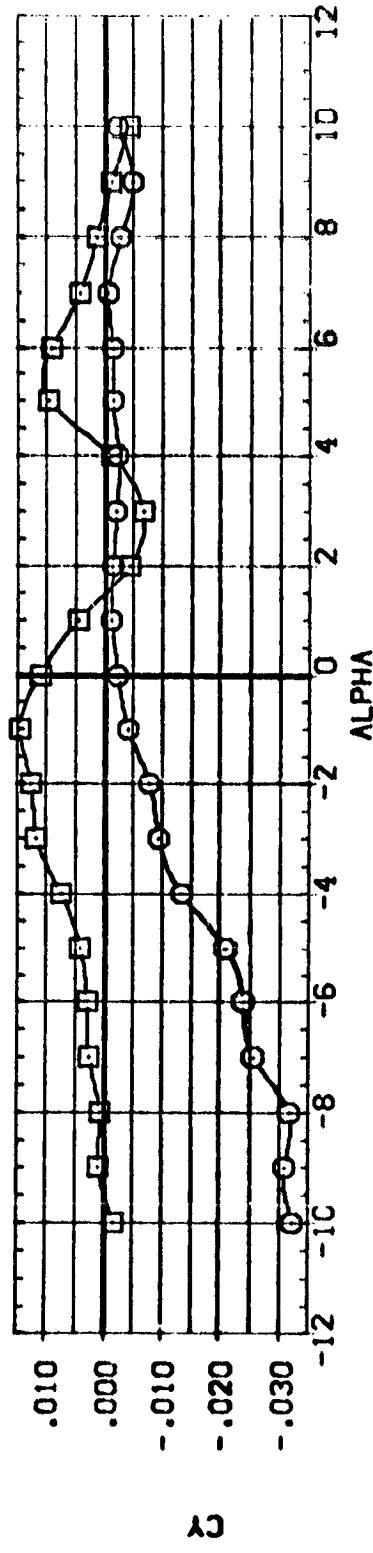


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EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHRACT. (RNL=2.08)  
 $(\text{A})_{\text{MACH}} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

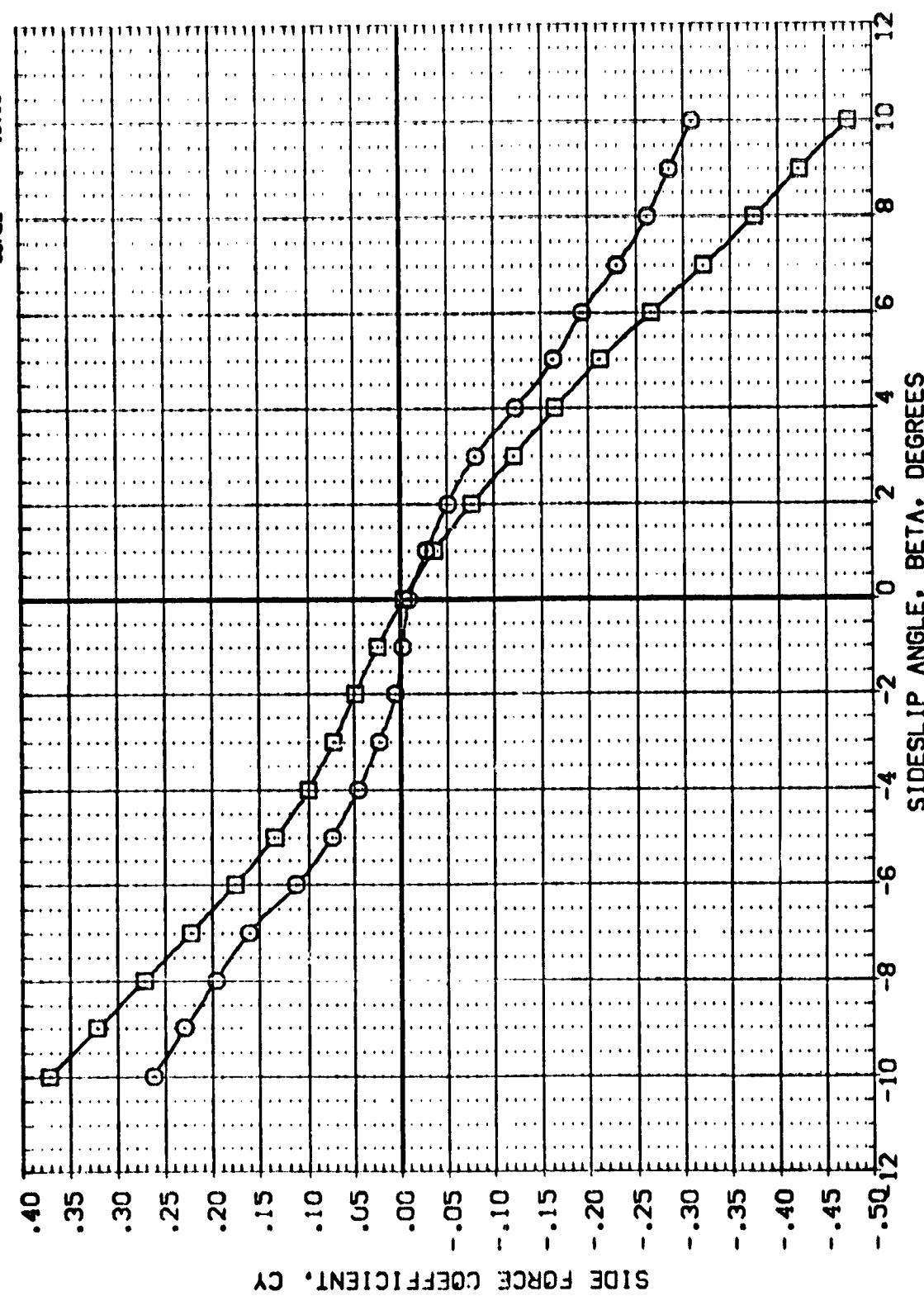
(RTL051)	AEDC VA-2221A-571.	ORBIT VABETH SRB	SREF	2650.0000	SC.FT.
(RTL062)	AEDC VA-4221A-571.	GRB/ET VABETH SRB	LREF	1250.3000	IN.
			BREF	1250.3000	IN.
			X-SP	152.0000	IN.
			Y-SP	300.0000	IN.
			Z-SP	447.0000	IN.
			SCALE	.0100	



EFFECT OF SYMMETRICAL SRB SEPARATION ON O/ET CHRACT. (RN/L=2.08)  
(AMACH = 4.50)

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLC52) AEDC VA-422(A-57); CRB/ET V/BOTH 508  
 (RTLC53) AEDC VA-422(A-57); CRB/ET V/BOTH 508

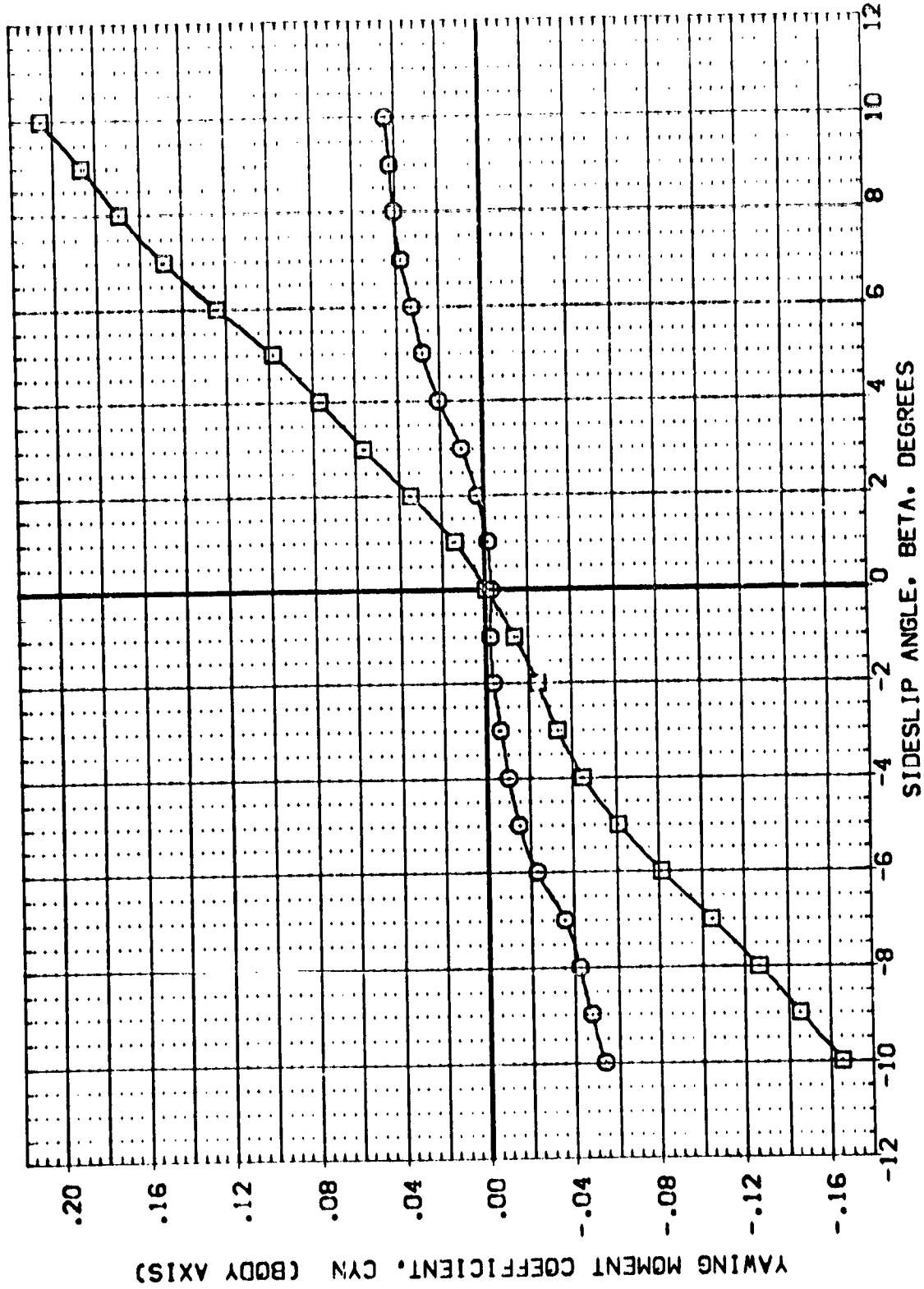
REFERENCE INFORMATION  
 SPOS RNL PT-JET ALPHA REF 2690 3000 SD FT.  
 2.200 2.080 1500.000 .000 LREF 2200 3000 27777  
 3.300 2.080 1500.000 .000 BREF 1200 3000 27777  
 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000  
 447 3000 27777  
 SCALE .000



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHRACT. (RN/L=2.08)  
 (A) MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
[RTLO62] AEDC VA-422(1A-57); ORBIT V/BOTH SRB  
[RTLO63] AEDC VA-422(1A-57); ORBIT V/BOTH SRB

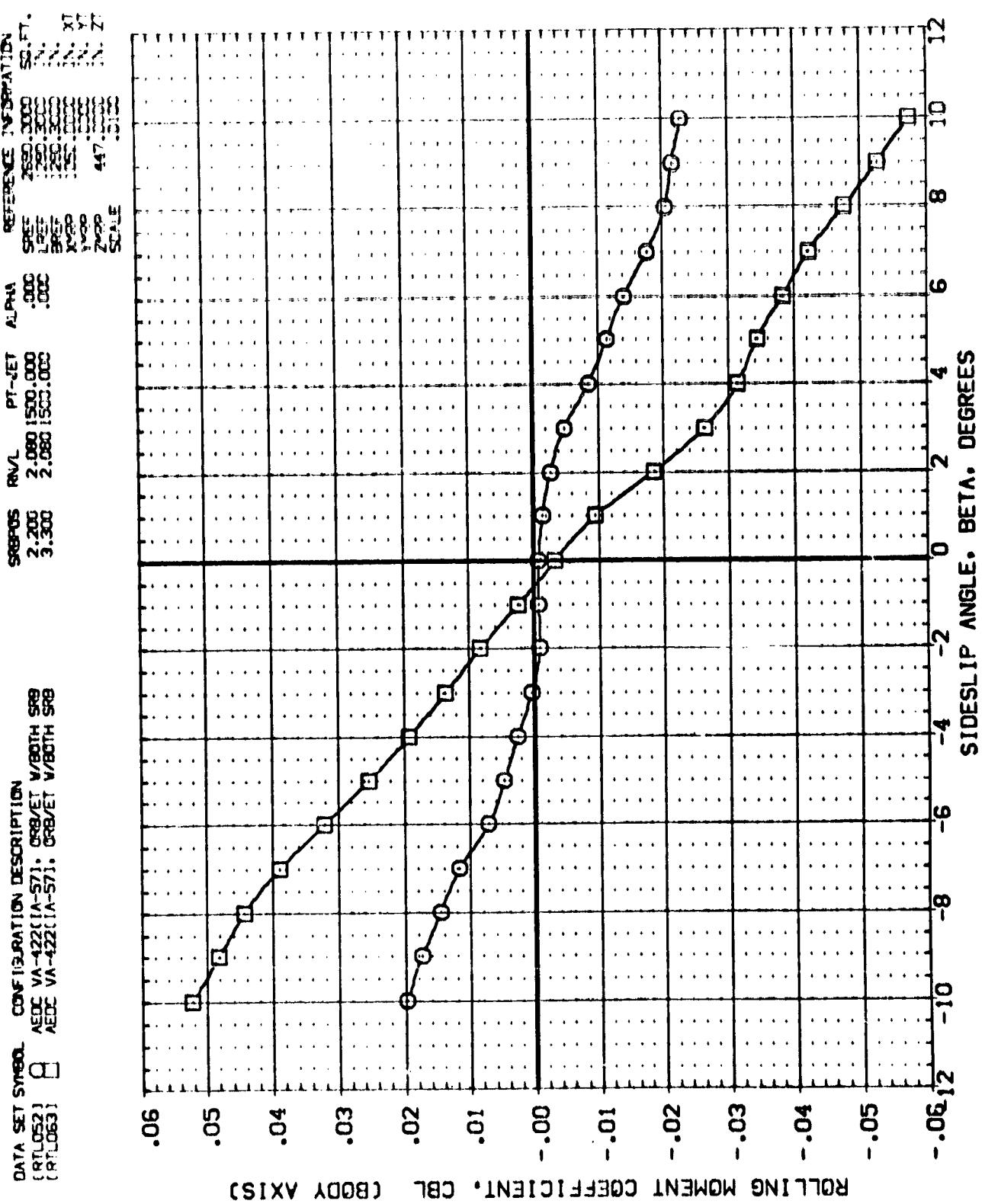
REFERENCE INFORMATION  
REF 2620 2000 SQ.FT.  
LREF 1250 1000  
BREF 1250 1000  
XSRP 1552 1350  
YSRP 447 320  
SCALE .000



EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=2.38)

(A)MACH = 4.5C

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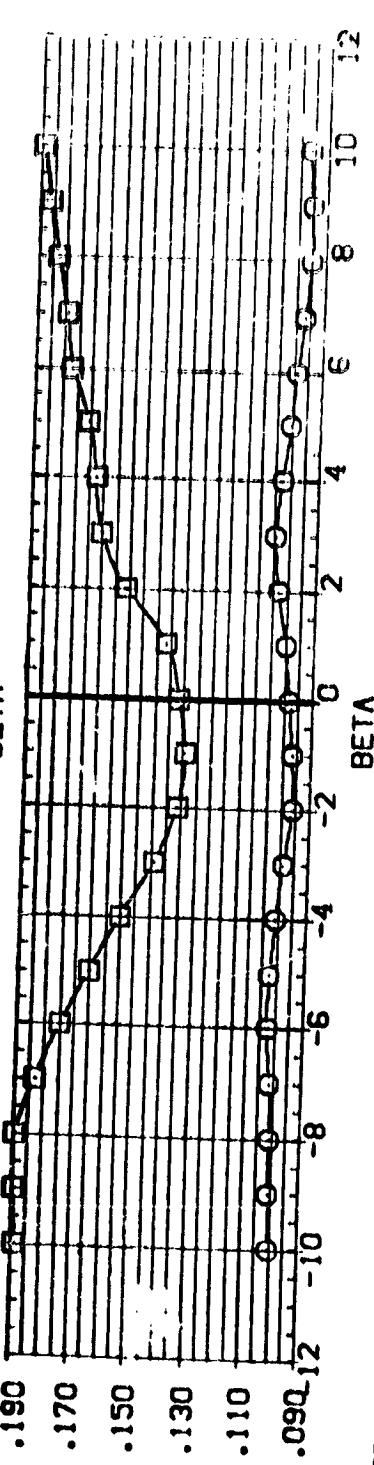
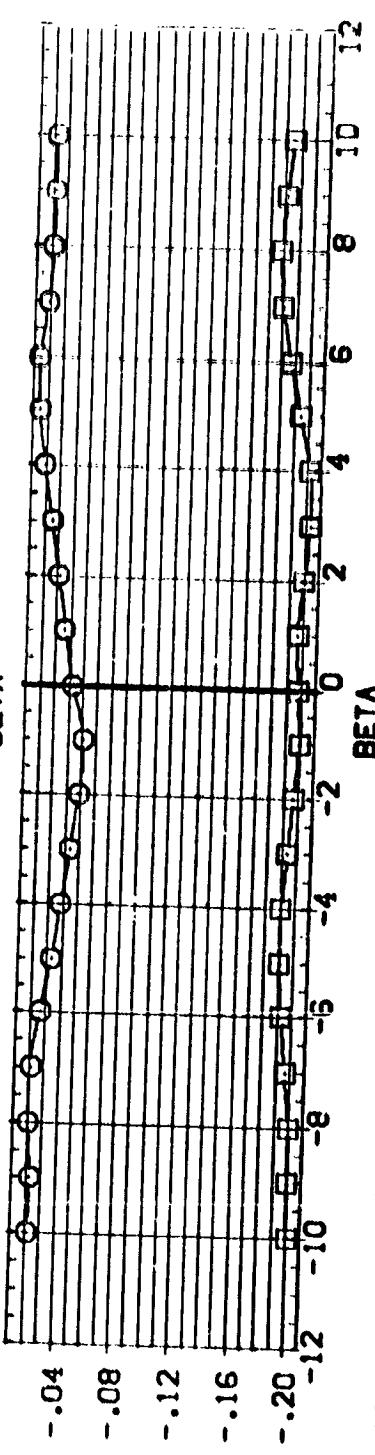
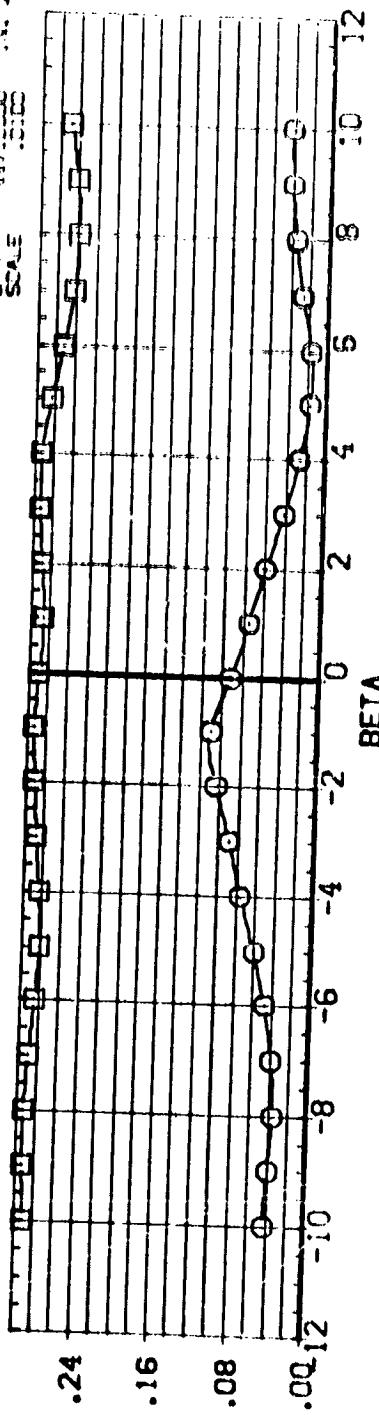


EFFECT OF SYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=2.08)

(AJMACH = 4.50)

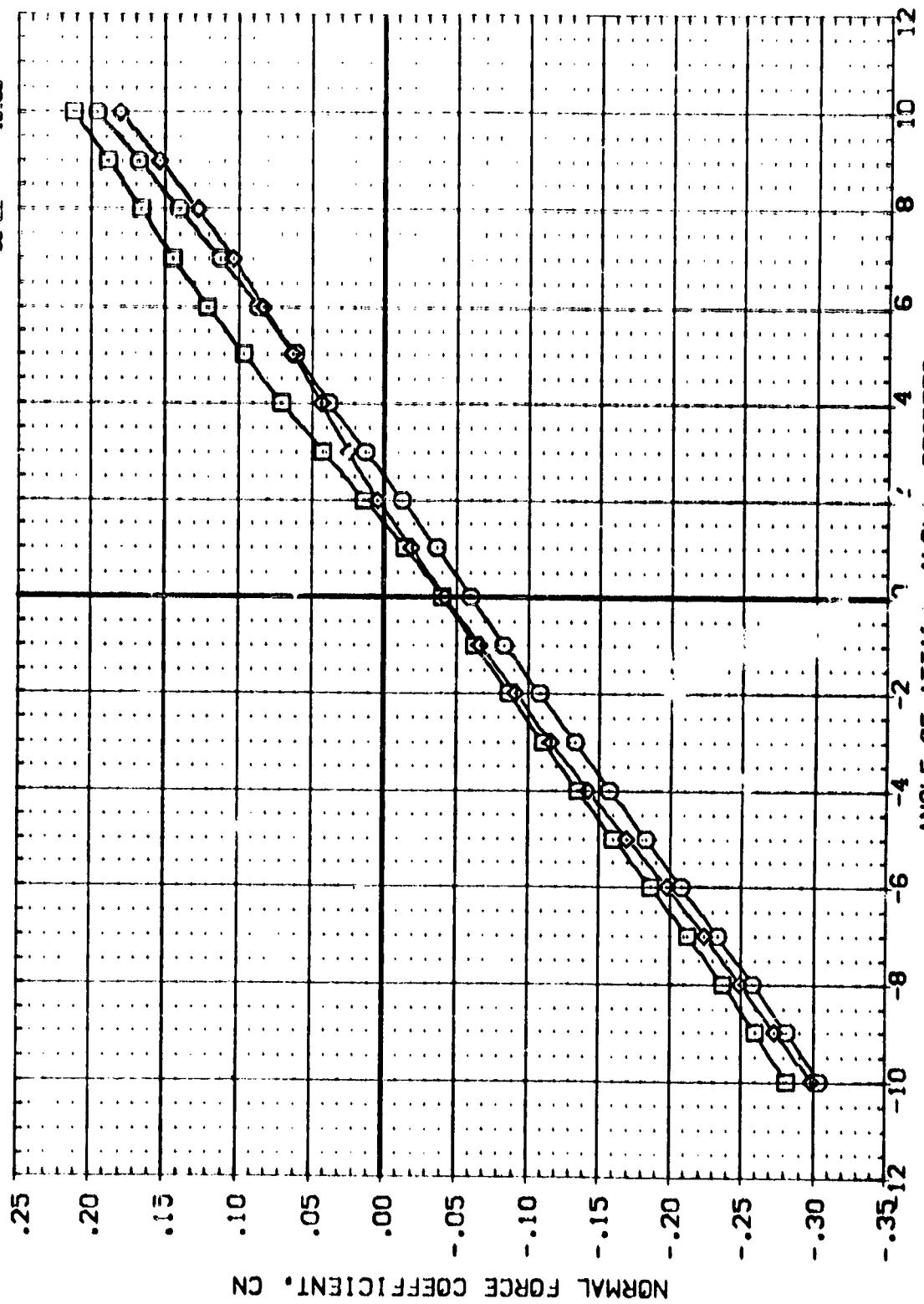
**DATA SET SYMBOL** **CONFIGURATION DESCRIPTION**  
 [RTL052] AEDC VIA-422[IA-57]: DB8/ET V/B8TH  
 [RTL063] AEDC VIA-422[IA-57]: DB8/ET V/B8TH

STEPS	RVN.	PT-SET	ALP-A	REFERENCE: PREPARATION
2.203	2.080	150,000	000	SEC 2000-3000 SEC.F.T.
3.303	2.080	150,000	000	SEC 2000-3000 SEC.F.T.



## EFFECT OF SYMMETRICAL SRB SEPARATION ON O/ET CHARACT. (RN/L=2.58)

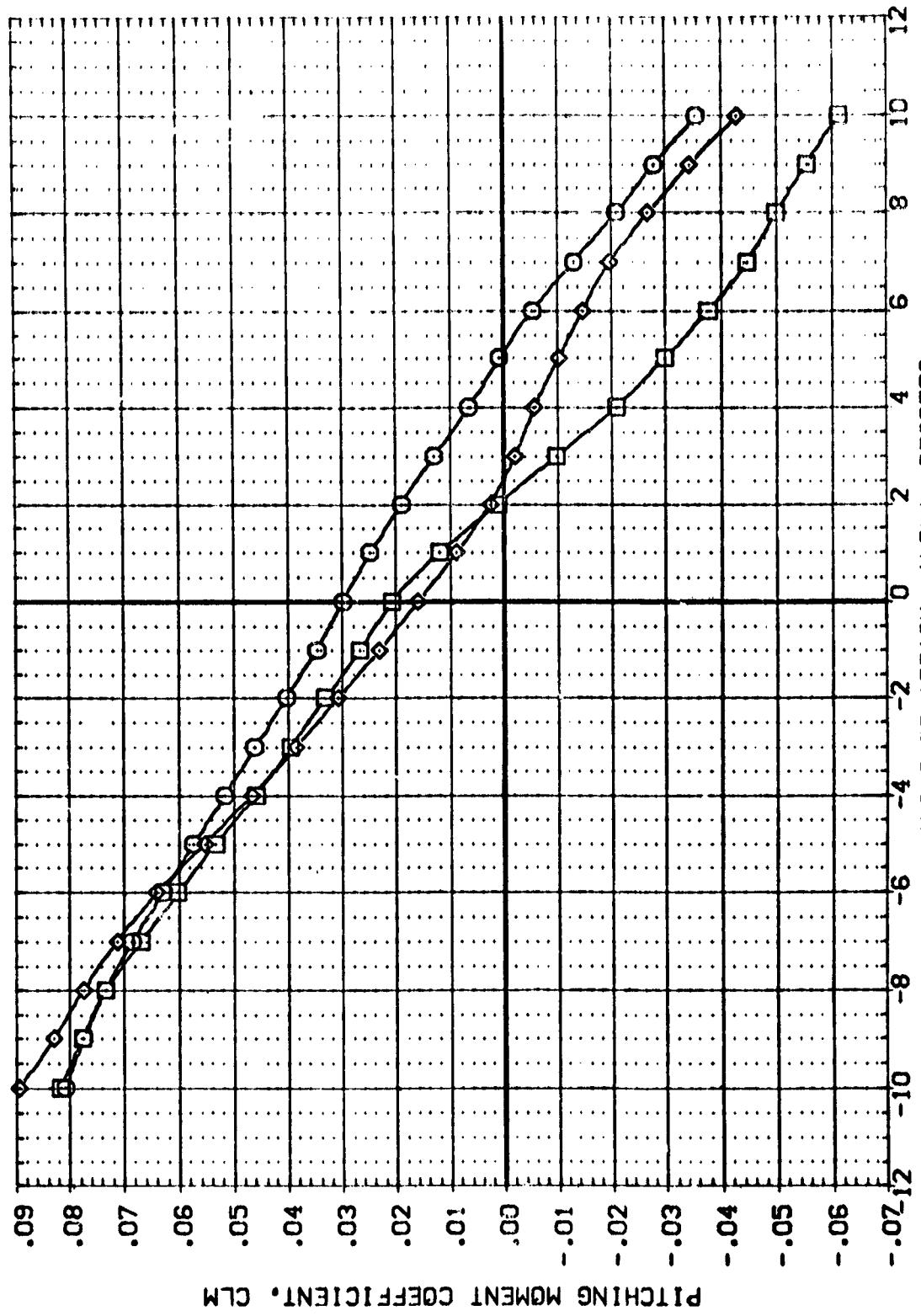
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRT034 AEDC VA-4-22(VA-571) SRB/ET V/BOTH SRB  
 CRT-C45 AEDC VA-4-22(VA-571) SRB/ET V/BOTH SRB  
 CRT-C55 AEDC VA-4-22(VA-571) SRB/ET V/BOTH SRB



EFFECT OF SYMMETRICAL SRB SEPARATION WITH VOLUMES ON 0/ET CHARACT. (CRNL=1.76)  
 CA,MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLD34) AEDC VA-422 [IA-57]. GRB/ET VABOTH SRB  
 (RTLD45) AEDC VA-422 [IA-57]. GRB/ET VABOTH SRB  
 (RTLD56) AEDC VA-422 [IA-57]. GRB/ET VABOTH SRB

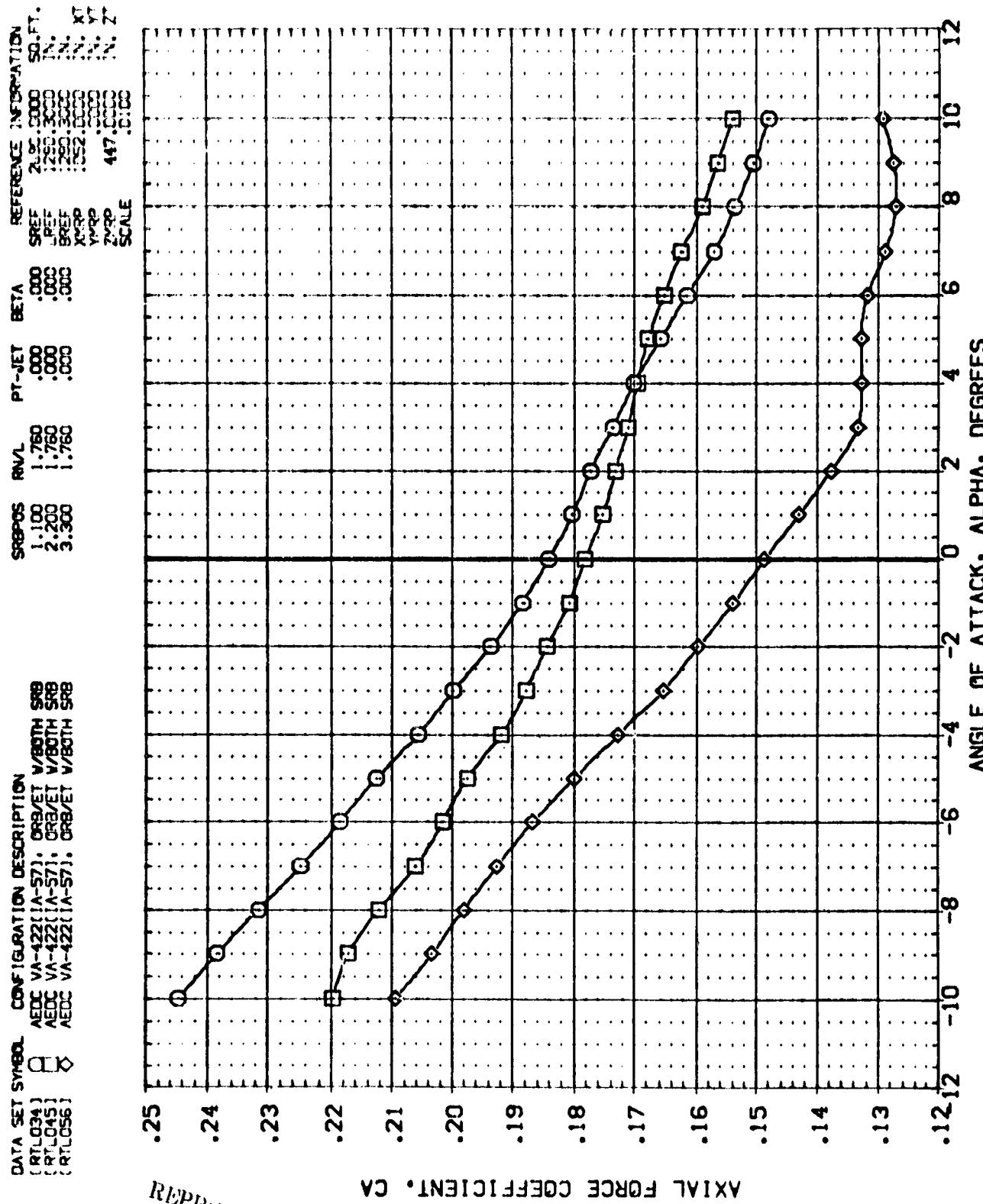
STABOS RNL PT-JET BETA  
 1.100 1.760 .000 .000  
 1.200 1.760 .000 .000  
 1.300 1.760 .000 .000  
 REFERENCE INFORMATION  
 SP. FT.  
 LREF .000 .000 .000  
 XREF .250 .300 .300  
 YREF .000 .000 .000  
 ZREF .447 .000 .000  
 SCALE .0100 .0100 .0100



EFFECT OF SYMMETRICAL SRB SEPARATION WITH NO PLUMES ON 0/ET CHRACT. (RN/L=1.75)  
 (A)MACH = 4.50  
 PAGE 46

EFFECT OF SYMMETRICAL SRB SEPARATION WITH NO PLUMES ON O/ET CHARACTER. (RN/L=1.76)  
 (A)MACH = 4.50

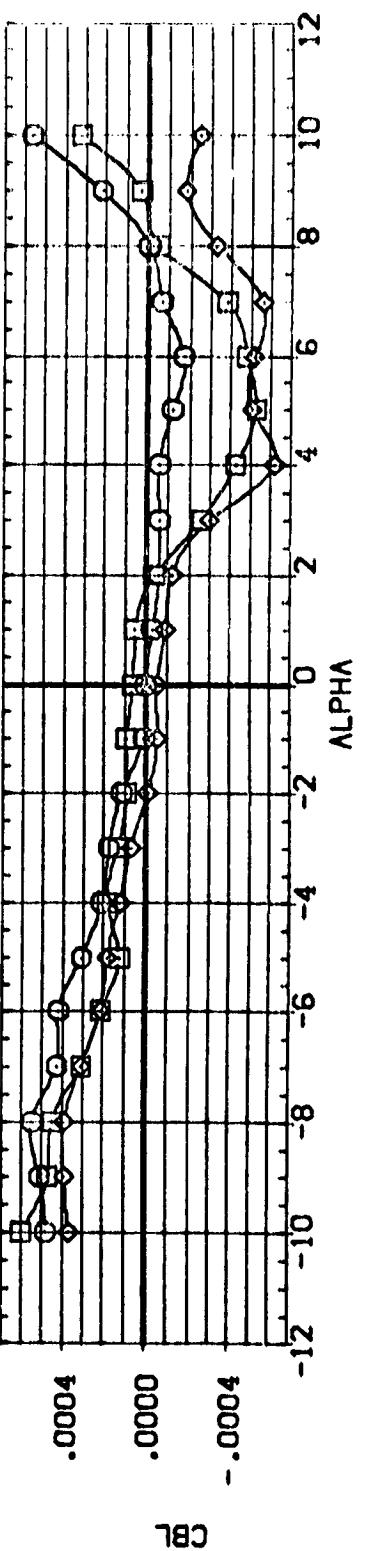
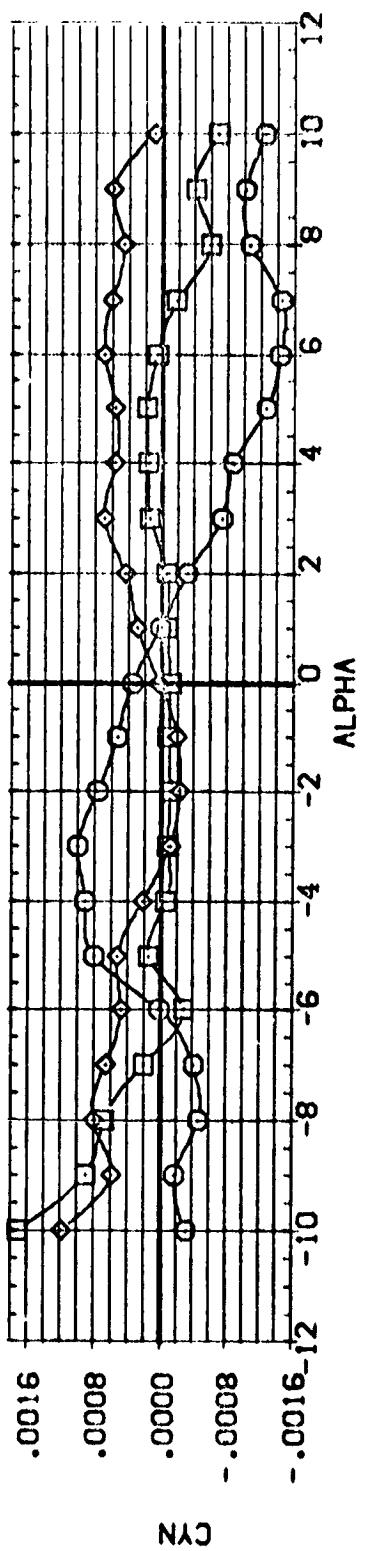
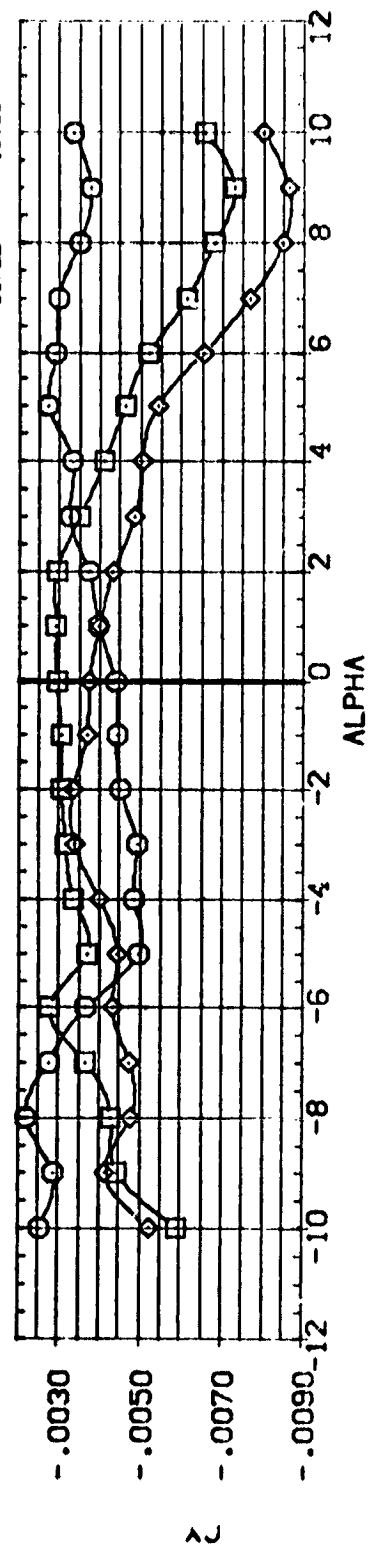
PAGE 47



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 ORIGINAL PAGE IS POOR

DATA SET NUMBER CONFIGURATION DESCRIPTION  
 (RPTL034) AEDC VA-4221A-571; GRS/ET W/BOTH SRB  
 (RPTL045) AEDC VA-4221A-571; GRS/ET W/BOTH SRB  
 (RPTL056) AEDC VA-4221A-571; GRS/ET W/BOTH SRB

STEPS	RVAL	P1-JET	BETA	REFERENCE INFORMATION
1.100	1.750	.000	.000	SREF 2690 0000 SQ.FT.
2.200	1.750	.003	.000	LREF 250 0000
3.300	1.750	.003	.000	BREF 1250 0000
				XREF 1000 0000
				YREF 1000 0000
				ZREF 447 0000
				SCALE IN. Z

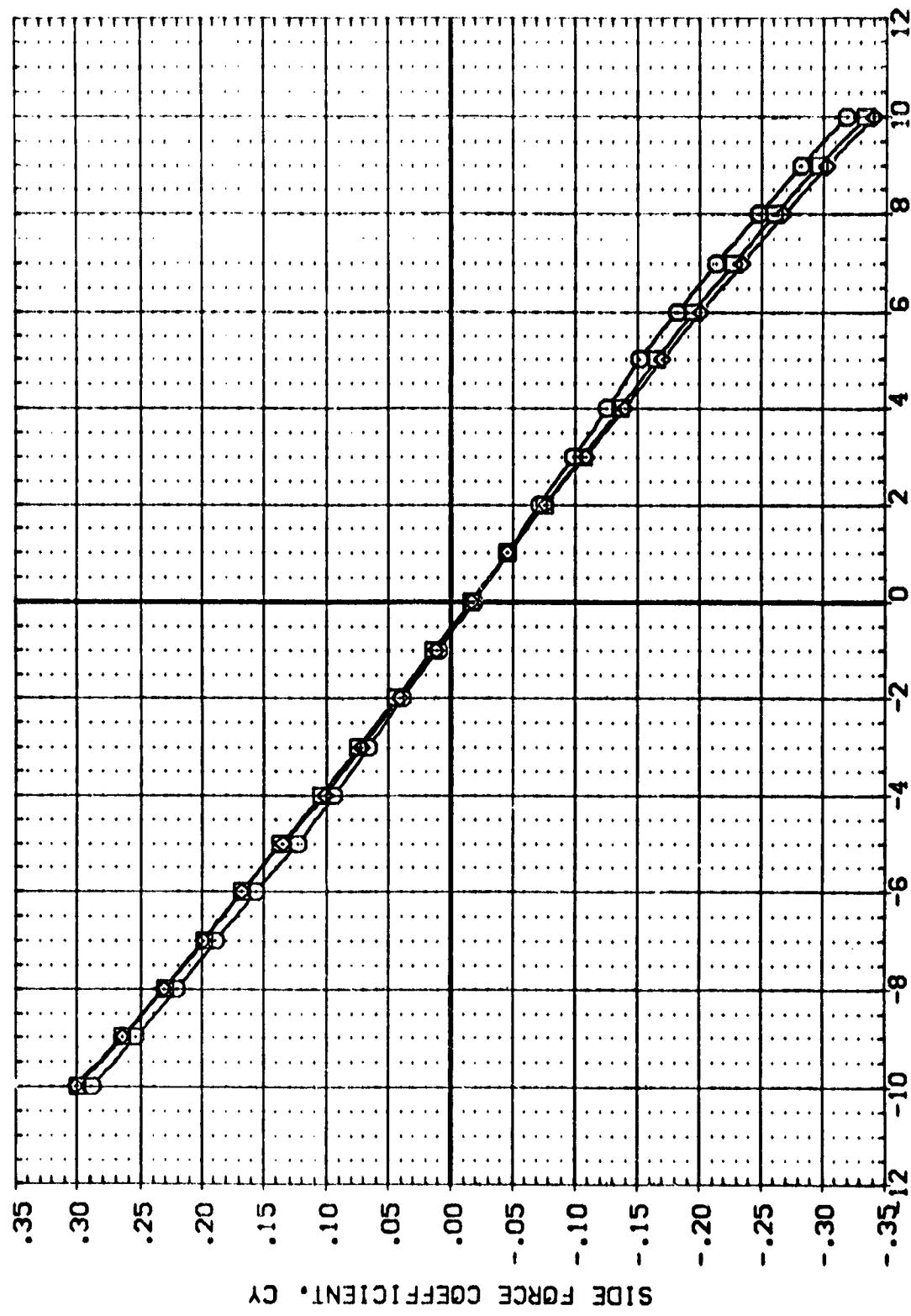


EFFECT OF SYMMETRICAL SRB SEPARATION WITH NO PLUMES ON Q/ET CHRACT. (RM/L=1.76)  
 $(\alpha_{MACH} = 4.50)$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL035)	AEDC VA-422 [IA-57]	CRB/ET V/BOTH SRB
(RTL046)	AEDC VA-422 [IA-57]	CRB/ET V/BOTH SRB
(RTL057)	AEDC VA-422 [IA-57]	CRB/ET V/BOTH SRB

REF. SPEED RNL PT-JET ALPHA REFERENCE INFORMATION  
 1.100 1.750 .000 SREF 2650. 3000. SQ.FT.  
 2.200 1.750 .000 LREF 225. 3000. N.  
 3.300 1.750 .000 BREF 150. 3000. N.  
 X=30 152. 3000. N.  
 Y=30 147. 3000. N.  
 Z=30 447. 3000. N.  
 SCALE .0100



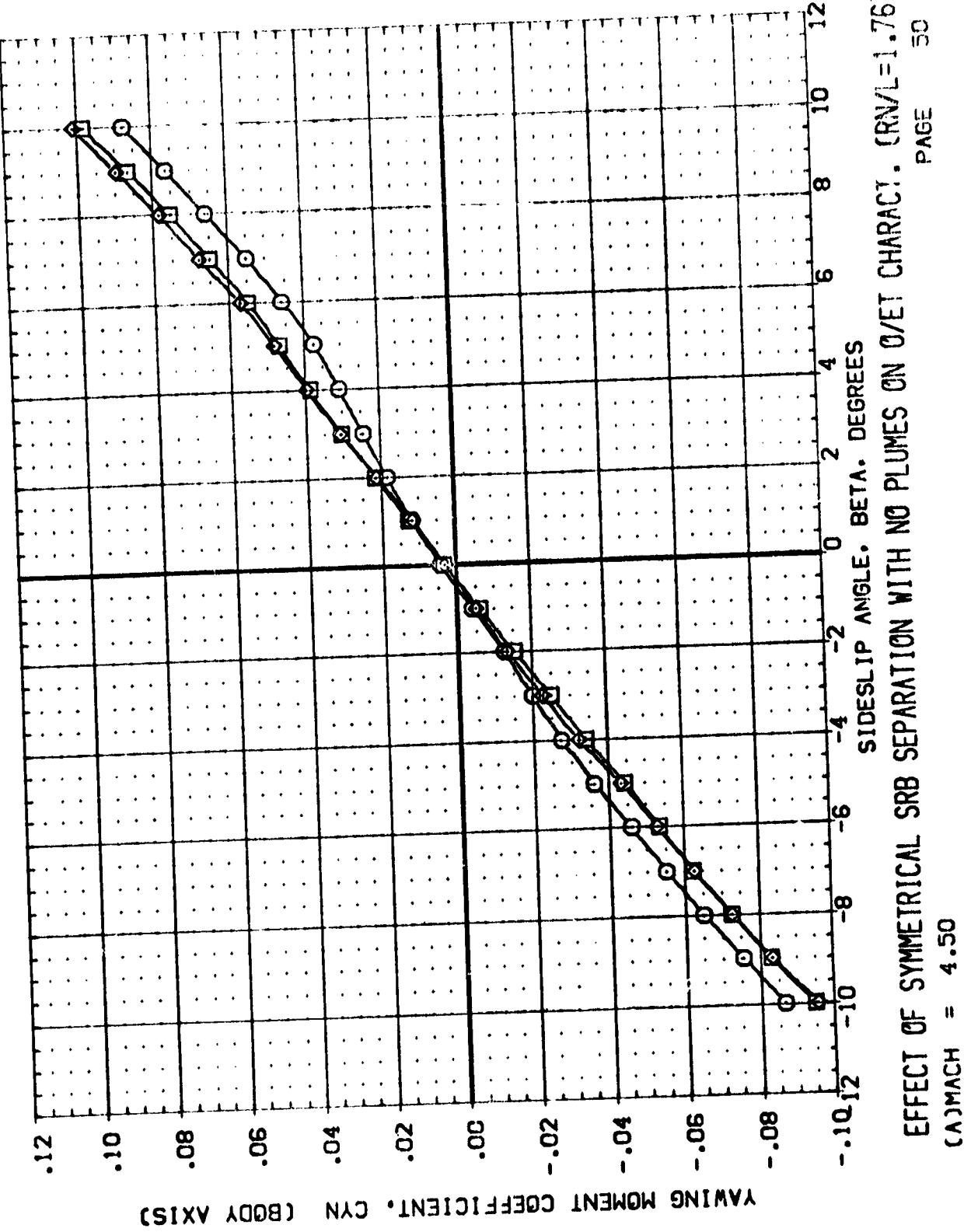
EFFECT OF SYMMETRICAL SRB SEPARATION WITH NO PLUMES ON 0/ET CHRACT. (RN/L=1.76)

(A)MACH = 4.50

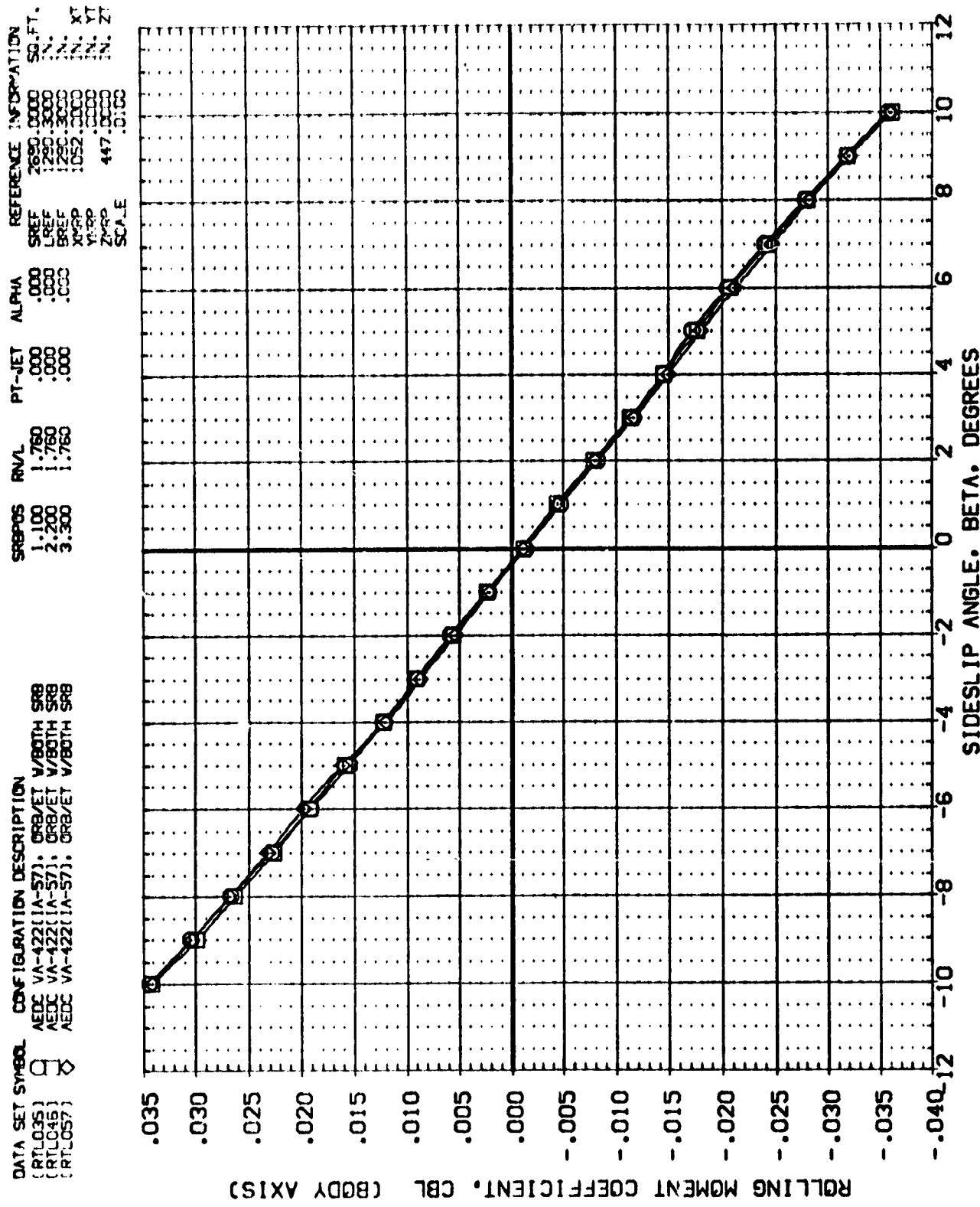
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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL035) AEDC VA-422 (IA-57). ORB/ET V/BOTH SRB  
 (RTL046) AEDC VA-422 (IA-57). ORB/ET V/BOTH SRB  
 (RTL057) AEDC VA-422 (IA-57). ORB/ET V/BOTH SRB

SRBPOS	RN/L	PT-JET	ALPHA	REFERENCE INFORMATION
1.100	1.760	.000	.000	2690.000 SQ.FT.
2.200	1.760	.000	.000	LREF .3000 IN.
3.300	1.760	.000	.000	BREF .1250.3000 IN. X
				ZREF .1520.3000 IN. Y
				XMRP .447.0000 Z
				YMRP .0000
				SCALE .000



EFFECT OF SYMMETRICAL SRB SEPARATION WITH NO PLUMES ON 0/ET CHARACT. (RN/L=1.76)  
 (A)MACH = 4.50  
 PAGE 30



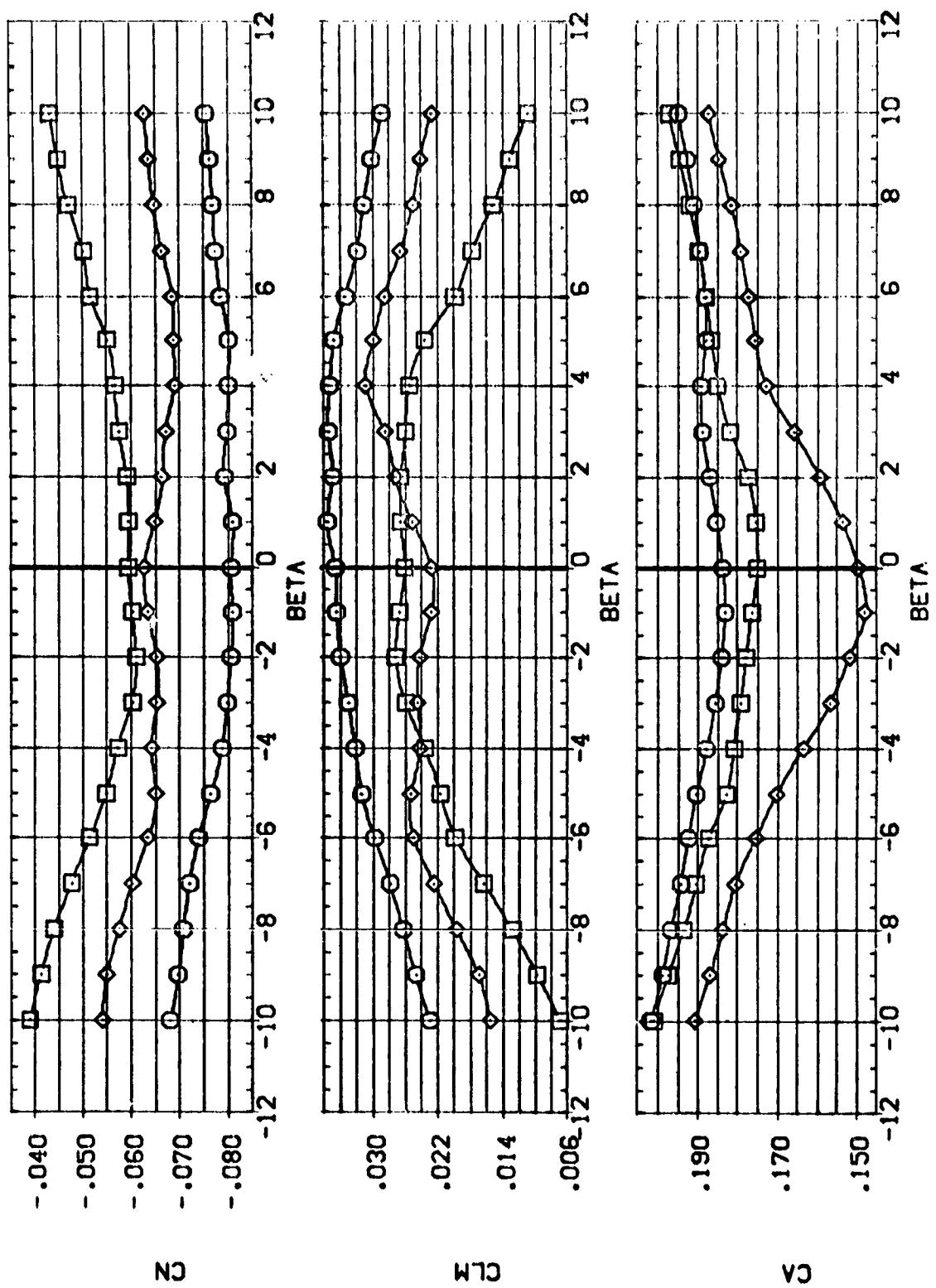
EFFECT OF SYMMETRICAL SRB SEPARATION WITH NO PLUMES ON Q/ET CHARACT. (RN/L=1.76)

$$[\Delta]MACH = 4.50$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTLC05)	○	GRB/ET V/BOTH SRB
(RTLC06)	□	GRB/ET V/BOTH SRB
(RTLC07)	◊	GRB/ET V/BOTH SRB

SRBPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 1.100 1.760 .000 LREF 2690 .0000 SQ.FT.  
 2.200 1.760 .000 LREF 1290 .3000 IN.  
 3.300 1.760 .000 LREF 1290 .3000 IN.  
 XREF DS2 .0000 IN.  
 YREF DS2 .0000 IN.  
 ZREF 447 .0000 IN.  
 SCALE .0100

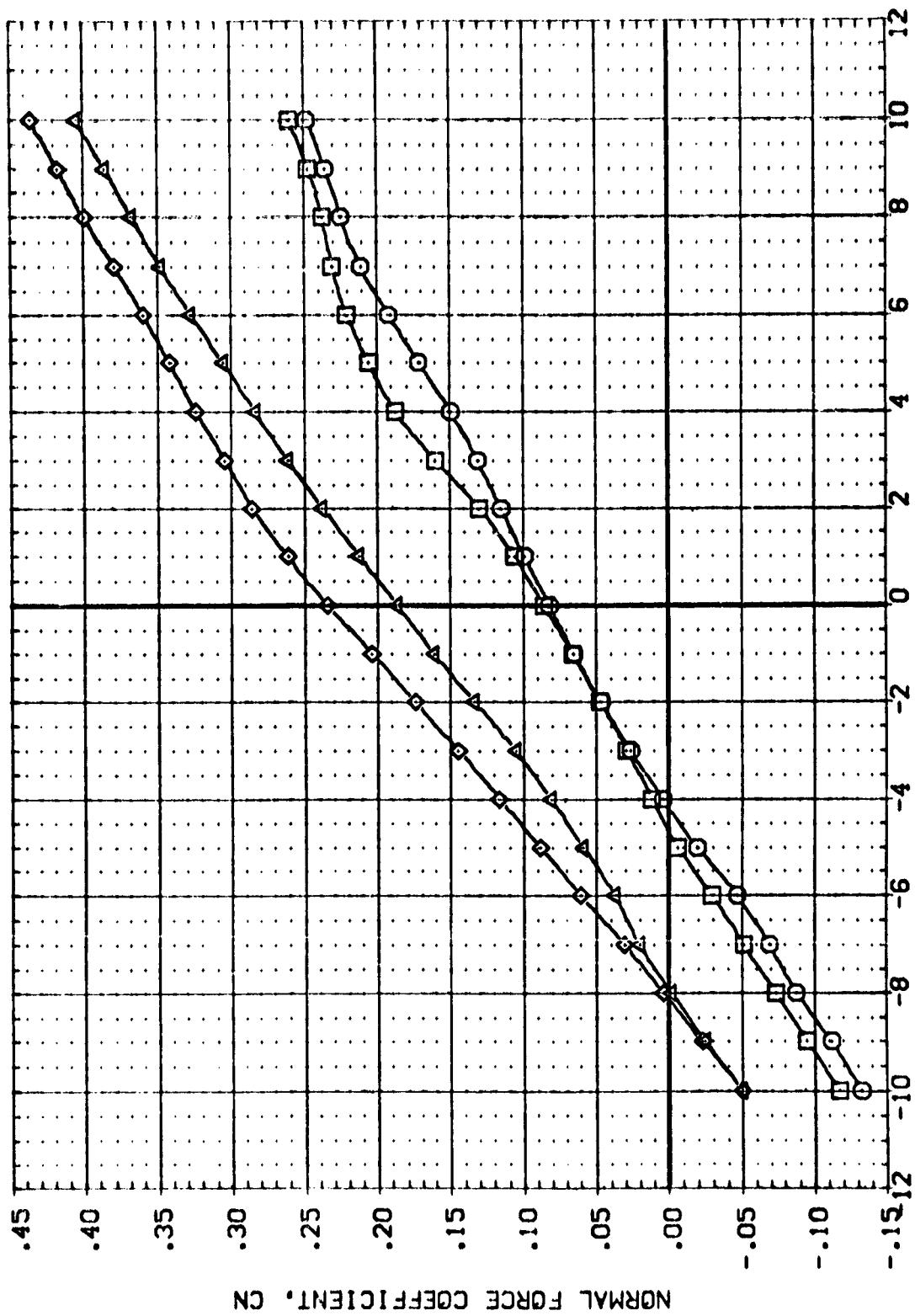


EFFECT OF SYMMETRICAL SRB SEPARATION WITH NO PLUMES ON C/ET CHRACT. CRM/L=1.76  
 $C_{\Delta MACH} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[ATL068]	AEDC VA-422 [A-57] ORB/ET V/BOTH SRB
[ATL072]	AEDC VA-422 [A-57] ORB/ET V/BOTH SRB
[ATL076]	AEDC VA-422 [A-57] ORB/ET V/BOTH SRB
[ATL080]	AEDC VA-422 [A-57] CRB/ET V/BOTH SRB

REFERENCE INTERPRETATION  
 SRPOS RNL PT-JET BETA REF SC. FT.  
 1.200 1.760 1500.000 .000 SREF 2690 3000  
 2.100 1.760 1500.000 .000 BREF 1290 3000  
 2.300 1.760 1500.000 .000 XRP 1290 3000  
 3.200 1.760 1500.000 .000 YRP 1552 3000  
 SCALE 447.000 ZRP .012



EFFECT OF UNSYMMETRICAL SRB SEPARATION ON O/ET CHARACT. (RN/L=1 76)

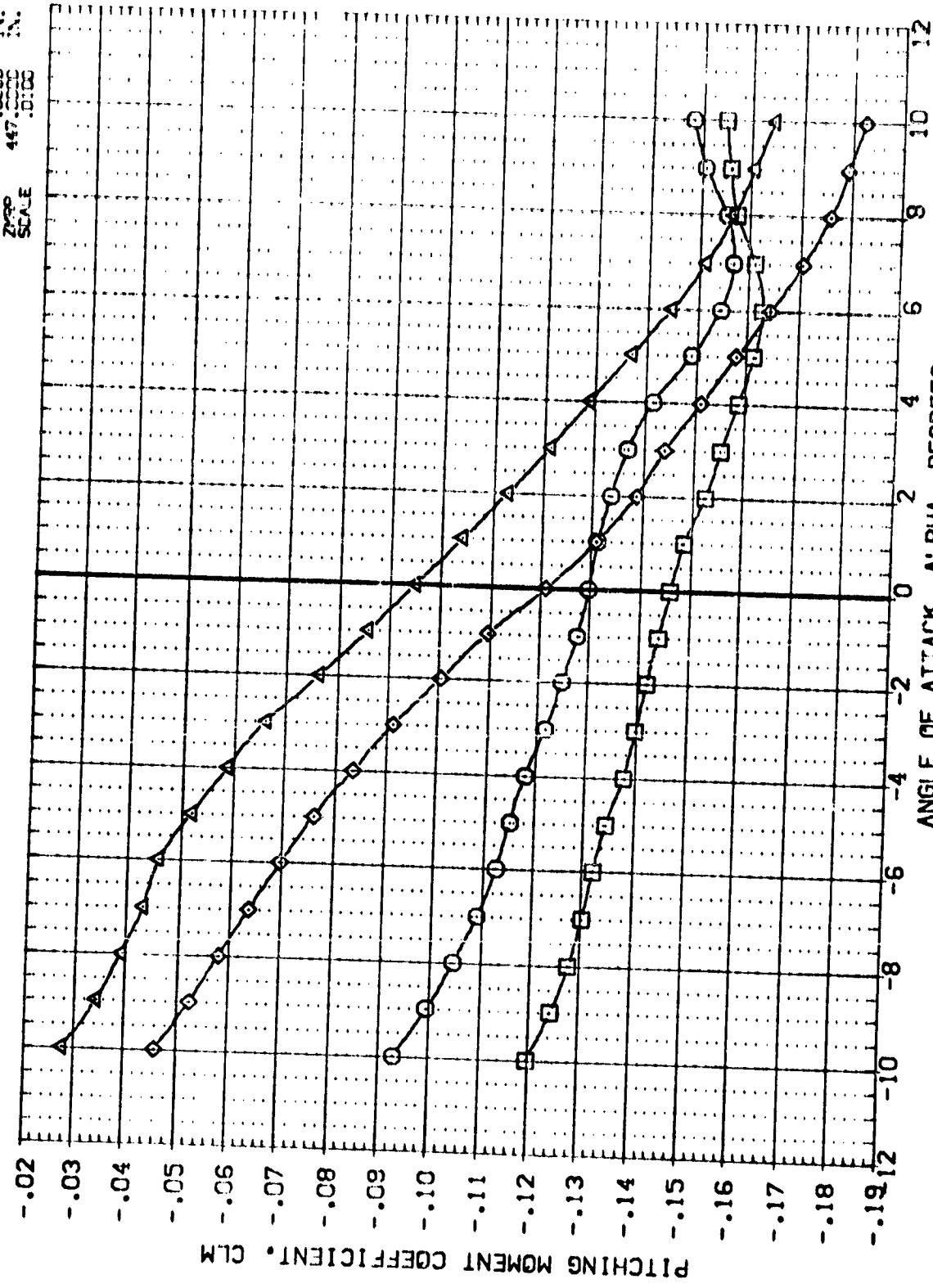
(A)MACH = 4.50

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTLOSB)	AEDC VA-422 (VA-57)	ORB/ET V/BOTH SRB
(RTLOC2)	AEDC VA-422 (VA-57)	ORB/ET V/BOTH SRB
(RTLOC6)	AEDC VA-422 (VA-57)	ORB/ET V/BOTH SRB
(RTLOC8)	AEDC VA-422 (VA-57)	ORB/ET V/BOTH SRB

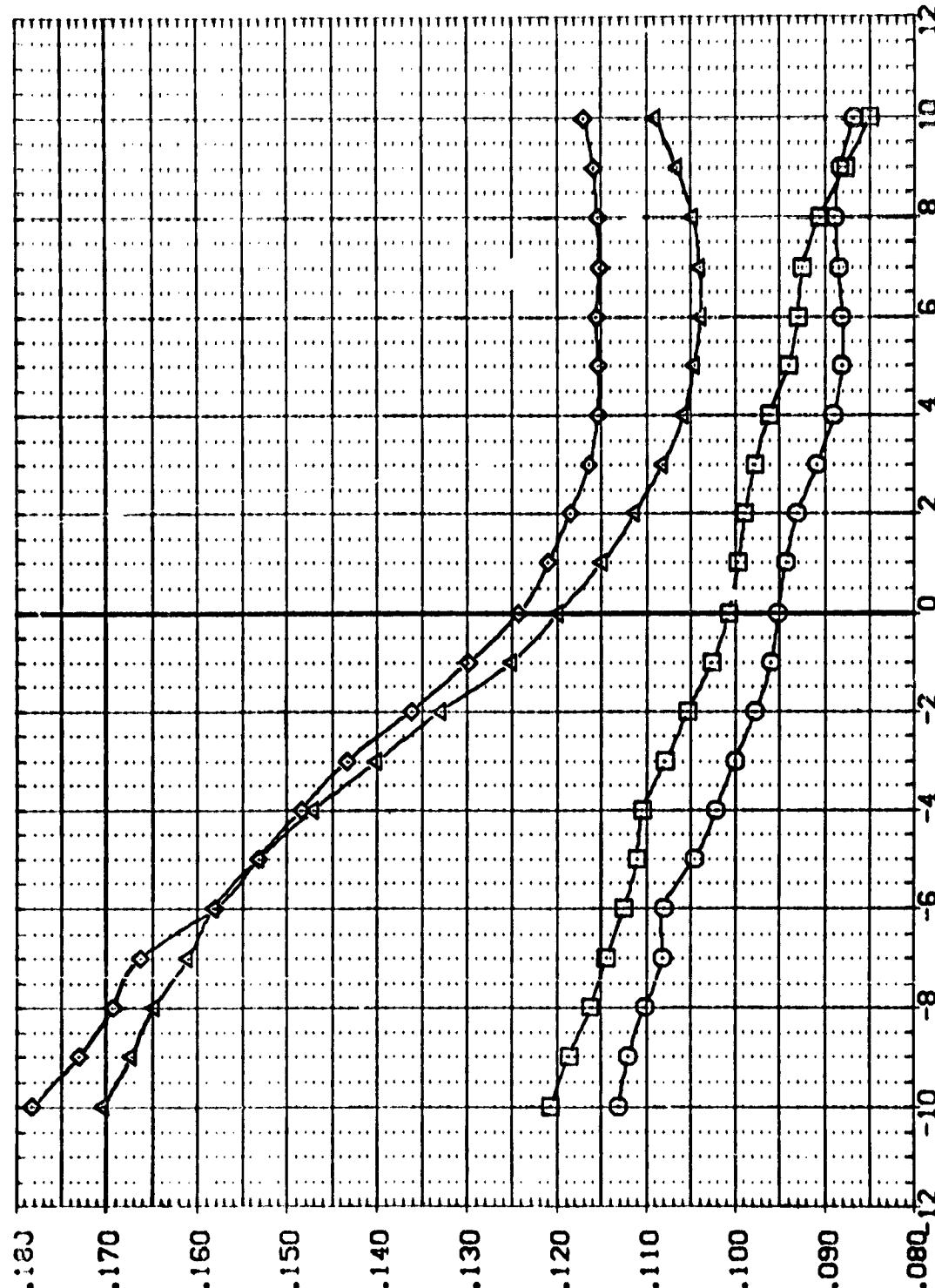


EFFECT OF UNSYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76)  
 $(\alpha)_MACH = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CRTL068)	AEDC VA-4221A-571.	ORBIT V/BOTH SRB
(CRTL072)	AEDC VA-4221A-571.	ORBIT V/BOTH SRB
(CRTL076)	AEDC VA-4221A-571.	ORBIT V/BOTH SRB
(PT_OET)	AEDC VA-4221A-571.	ORB/ET V/BOTH SRB

SRBPOS R/L PT-JET BETA REFERENCE INFORMATION  
 1.200 1.760 1500.000 .000 SREF 2690.0000 SC.FT.  
 2.100 1.760 1500.000 .000 SREF 1290.3000  
 2.300 1.760 1500.000 .000 SREF 1280.3000  
 3.200 1.760 1500.000 .000 SREF 1320.2000  
 XPT 1.760 1500.000 .000 SREF 447.2000  
 SCALE .5150



AXIAL FORCE COEFFICIENT, CA

EFFECT OF UNSYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RM/L=1.76)

(A)MACH = 4.50

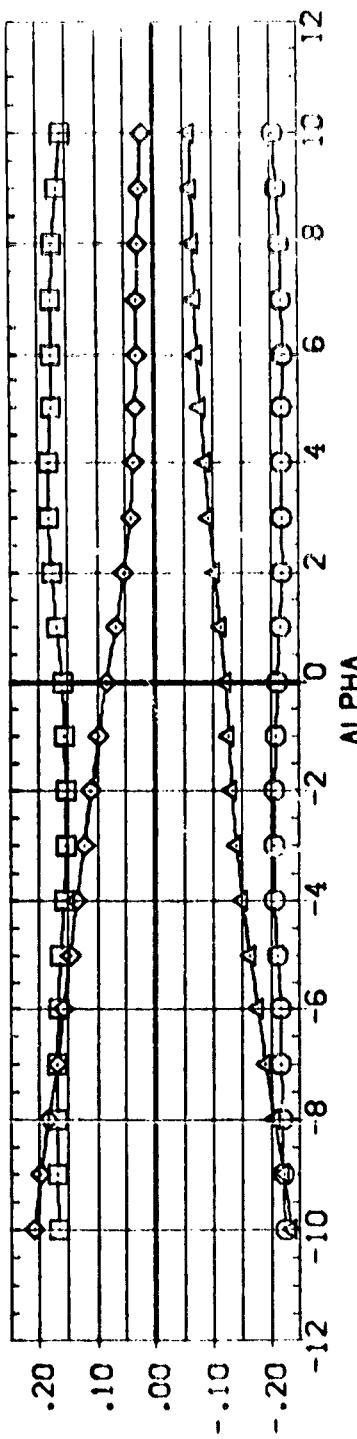
PAGE 55

DATA SET SYMBOL CONFIGURATION DESCRIPTION

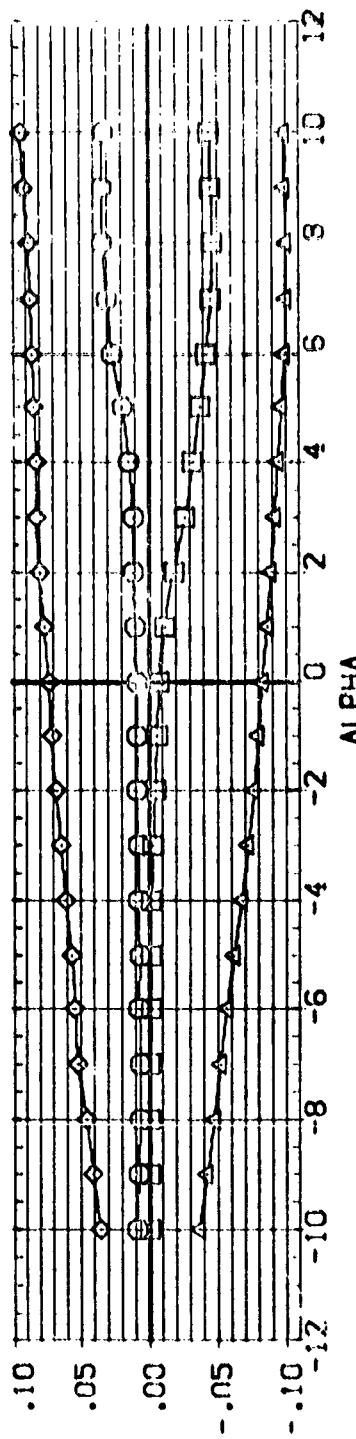
CRTLOG8	AEDC	VA-4222(IA-571)	CRB/ET	V/BOTH	SRB
CRTLOG7	AEDC	VA-4222(IA-571)	CRB/ET	V/BOTH	SRB
CRTLOG6	AEDC	VA-4222(IA-571)	CRB/ET	V/BOTH	SRB
CRTLOG5	AEDC	VA-4222(IA-571)	CRB/ET	V/BOTH	SRB

REFERENCE INFORMATION

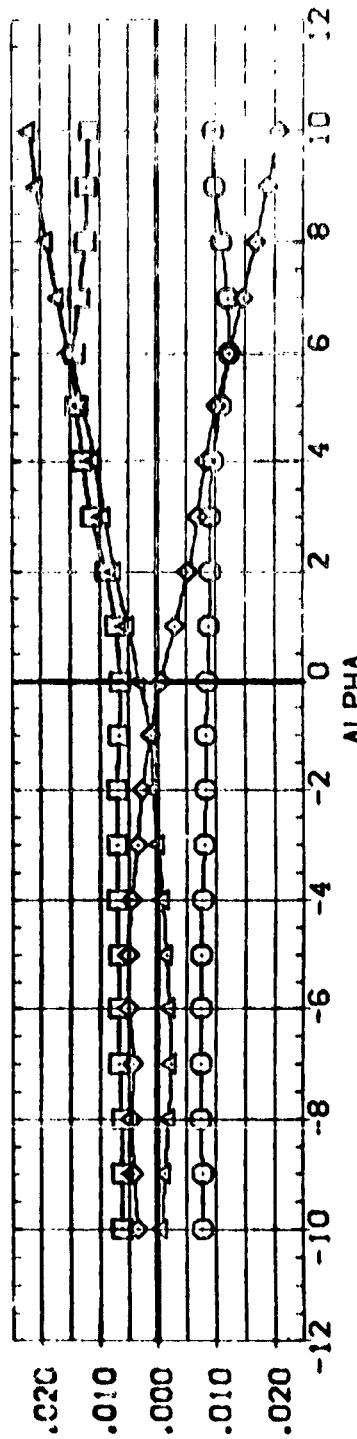
SRBPOS	RNL	PT-JET	TA	SCALE	2500.0000
			700	SCALE	2500.0000
				SCALE	2500.0000
				SCALE	2500.0000
				SCALE	2500.0000
				SCALE	447.0000
				SCALE	2500.0000



CYR



CYN



CBL

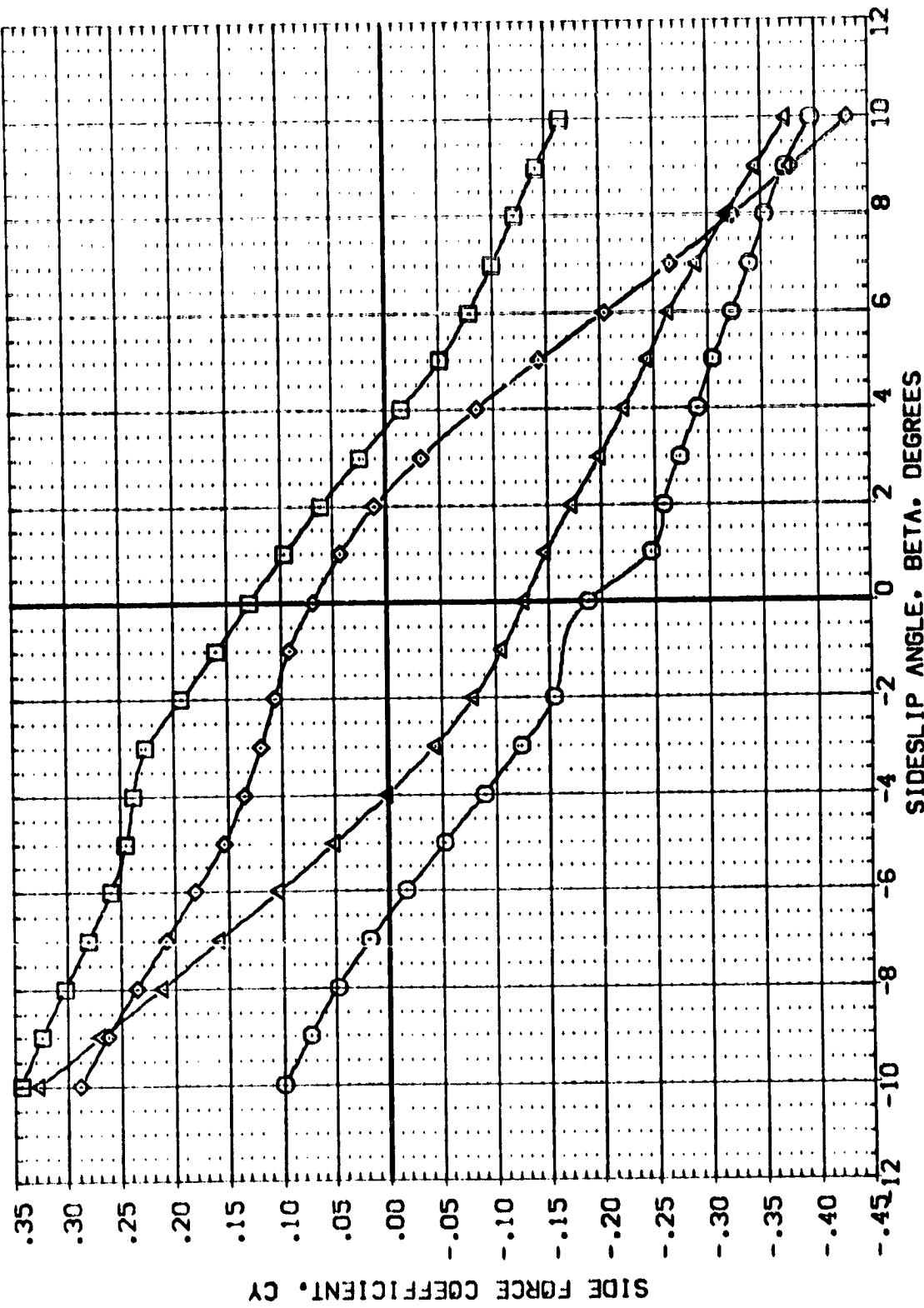
EFFECT OF UNSYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RNL/L=1.76)

CASMACH = 4.50

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RTL069)	AED/VA-422/[A-57].
(RTL073)	AED/VA-422/[A-57].
(RTL077)	AED/VA-422/[A-57].
(RTL081)	AED/VA-422/[A-57].

SRBPOS	RNL	PT-JET	ALPHA	REFERENCE	INFORMATION	S.F.
				SREF		
1.200	1.760	1500.000	.000	REF	260	100
2.100	1.760	1500.000	.000	REF	260	100
2.300	1.760	1500.000	.000	REF	260	100
3.200	1.760	1500.000	.000	REF	260	100

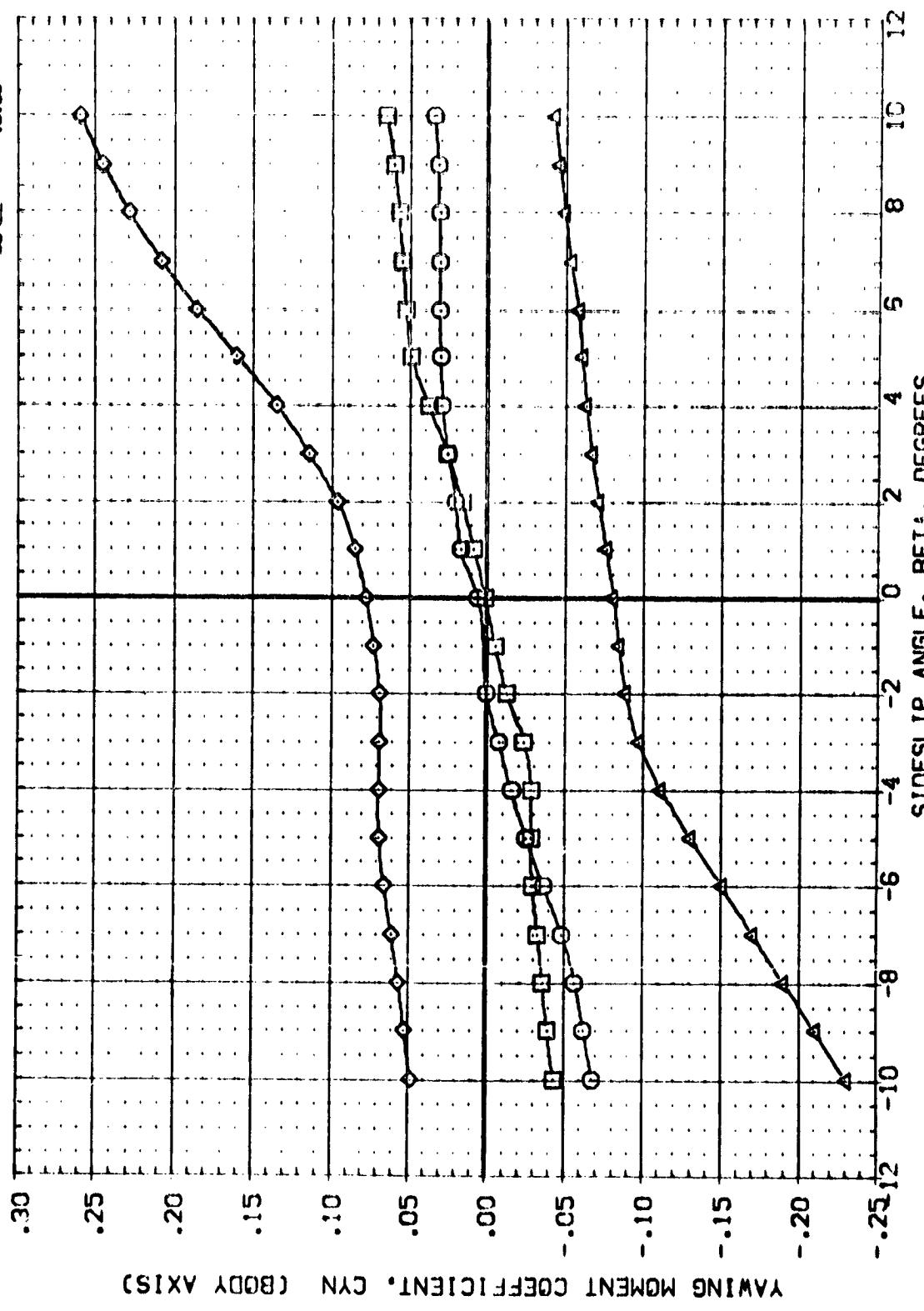


## EFFECT OF INSYMMETRICAL SRB SEPARATION ON Q/ET CHRACT. (RN/L=1.76)

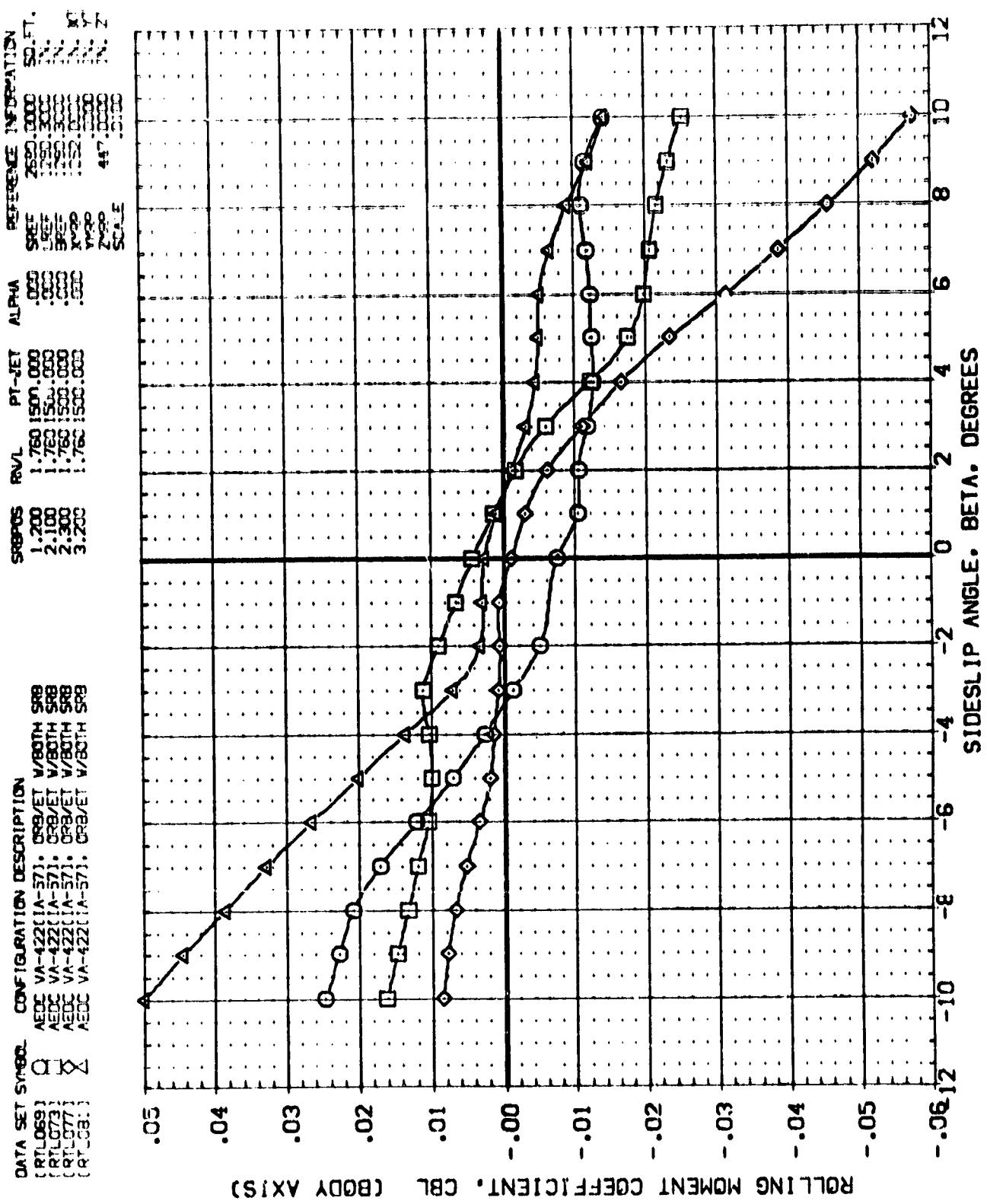
$$(\text{C})\text{MACH} = 4.50$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [RTL068] AEDC VA-4221(A-57) ORB/ET V/BOTH SRB  
 [RTL072] AEDC VA-4221(A-57) ORB/ET V/BOTH SRB  
 [RTL077] AEDC VA-4221(A-57) ORB/ET V/BOTH SRB  
 [RTL081] AEDC VA-4221(A-57) ORB/ET V/BOTH SRB

SEPARATION	R/V <sub>L</sub>	PJ-JET	ALPHA	SIDESLIP	REFERENCE INFORMATION
.1.200	.750	150.000	-100	300.000	SRB
.2.100	.752	150.000	-100	300.000	SRB
.2.300	.752	150.000	-100	300.000	SRB
.3.200	.752	150.000	-100	300.000	SRB



EFFECT OF UNSYMMETRICAL SRB SEPARATION ON 0/ET CHRACT. (R/V<sub>L</sub>=1.76)  
 (A)MACH = 4.50



EFFECT OF UNSYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (RM/L=1.76)

(A)MACH = 4.50

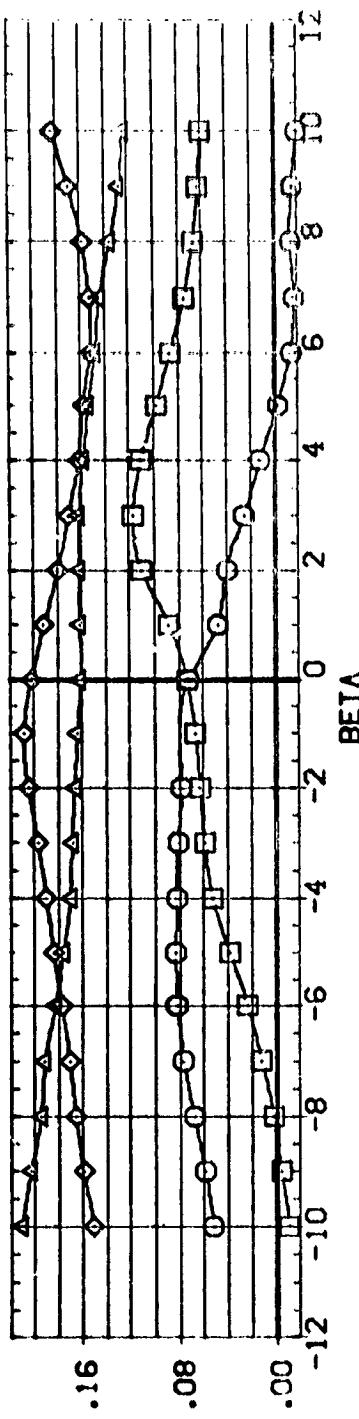
PAGE 59

DATA SET SYMBOL CONFIGURATION DESCRIPTION

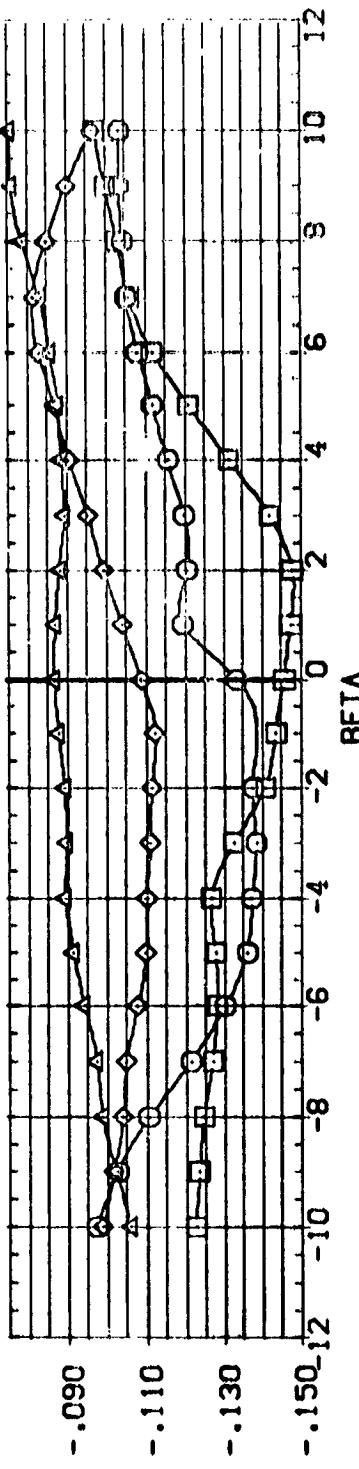
(RTL069)	AEDC VA-422(A-571)	CRB/ET V/BOTH SRB
(RTL073)	AEDC VA-422(A-571)	CRB/ET V/BOTH SRB
(RTL077)	AEDC VA-422(A-571)	CRB/ET V/BOTH SRB
(RTL081)	AEDC VA-422(A-571)	CRB/ET V/BOTH SRB

REFERENCE INFORMATION

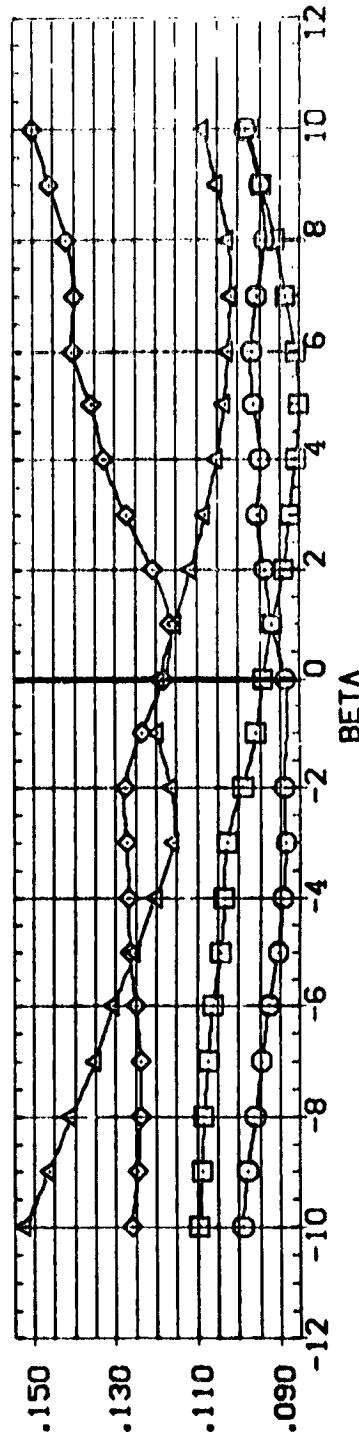
SEPROS	ANL	PT-JET	ALPHA	REF	2650,0000	SR.FT.
1.200	.750	1500.000	.000	LREF	1250.0000	
2.300	.750	1500.000	.000	BREF	1250.0000	
3.200	.750	1500.000	.000	XNP	152.0000	
				YNP	447.0000	
				ZNP	447.0000	
				SCALE	.000	



Cn



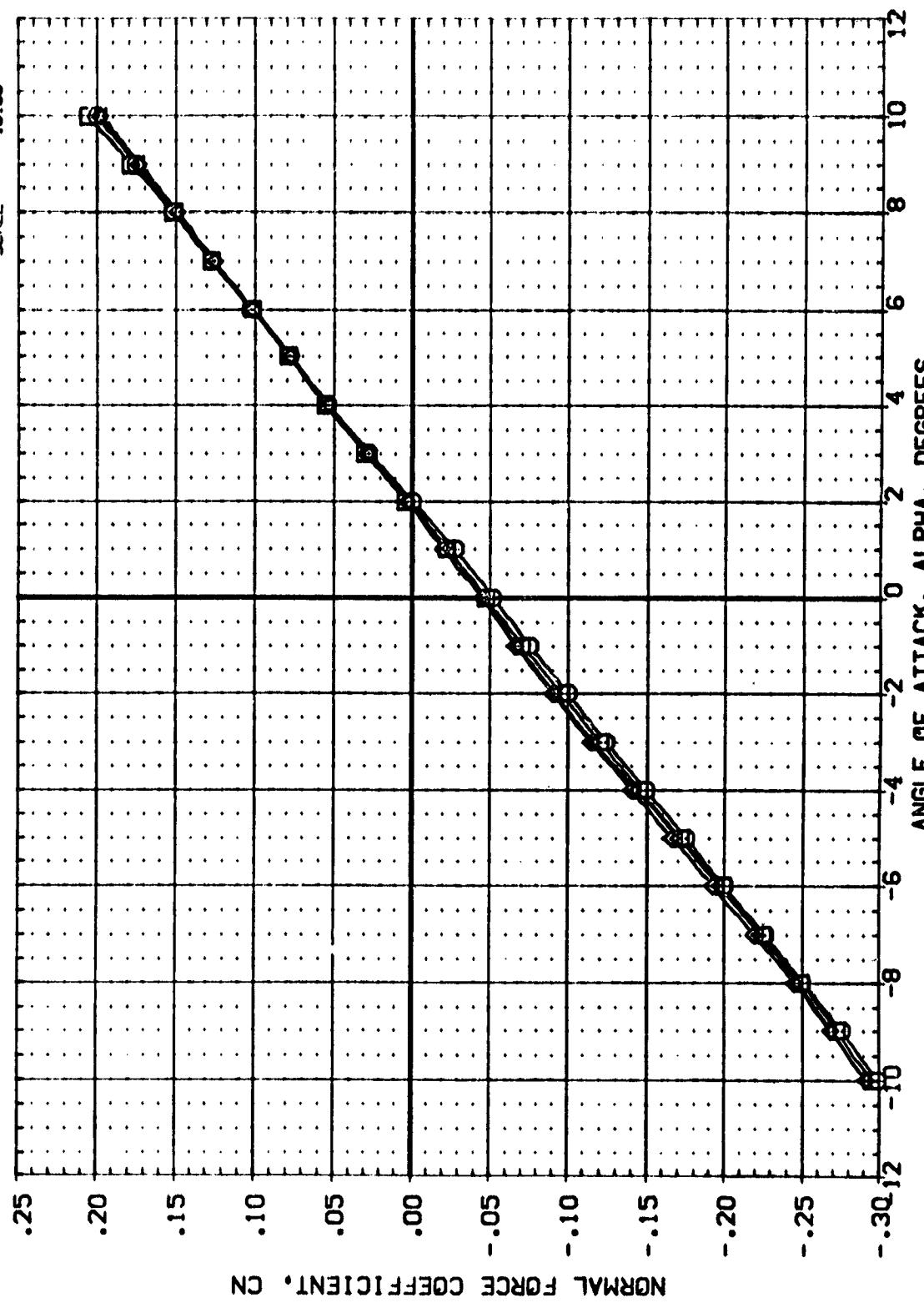
Clm



Ca

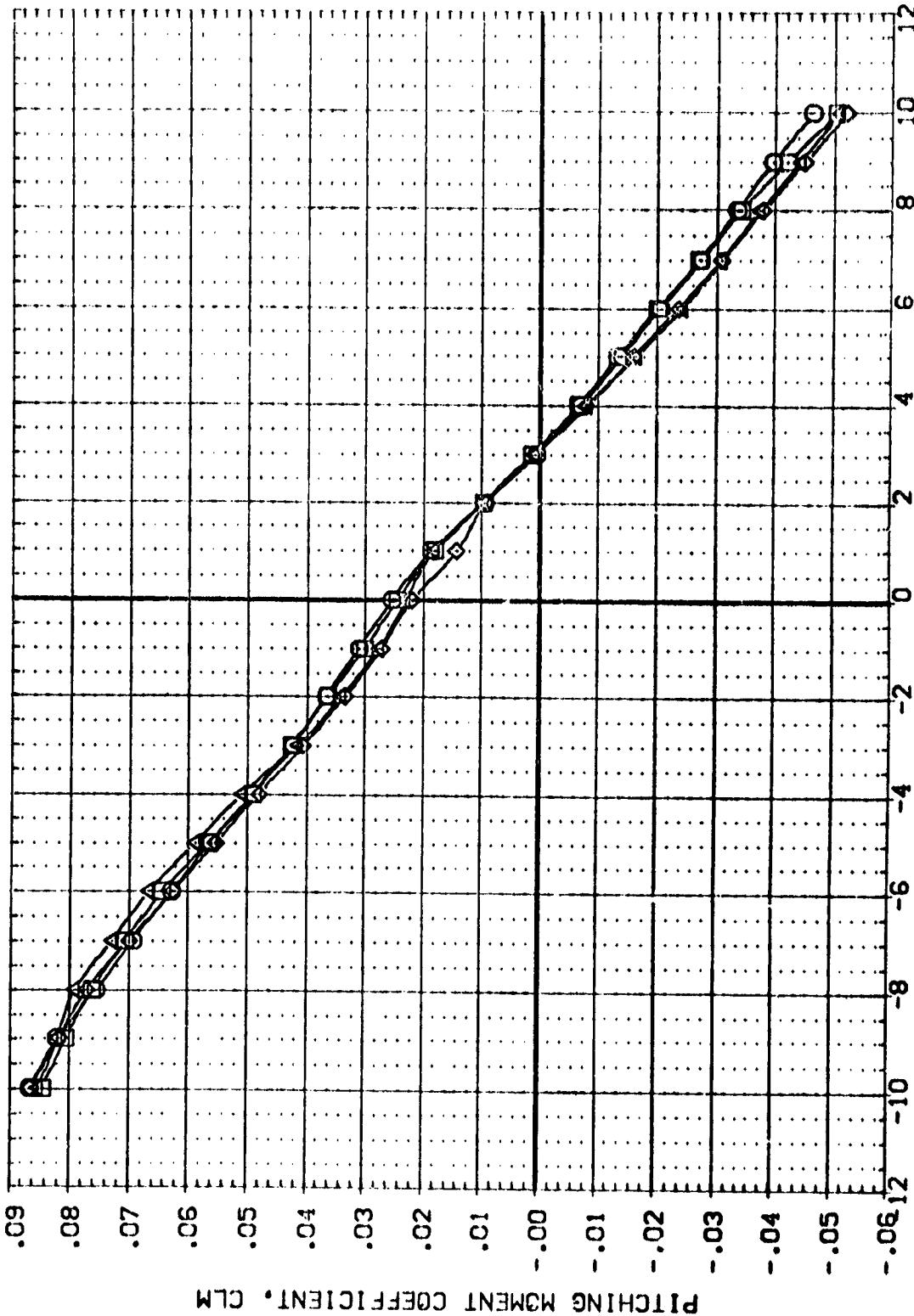
EFFECT OF UNSYMMETRICAL SRB SEPARATION ON 0/ET CHARACT. (CRN/L=1.76)  
(A)MACH = 4.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	RNL	BETA	REFERENCE INFORMATION
(RTLO64)	AEDC VA-422/IA-571.	1.200	1.760	.000	2680.0000 50. FT.
(RTLO70)	AEDC VA-422/IA-571.	2.100	1.760	.000	1280.3333 N.
(RTLO74)	AEDC VA-422/IA-571.	2.300	1.760	.000	1280.3333 N.
(RTLO78)	AEDC VA-422/IA-571.	3.200	1.760	.000	1352.0000 N.



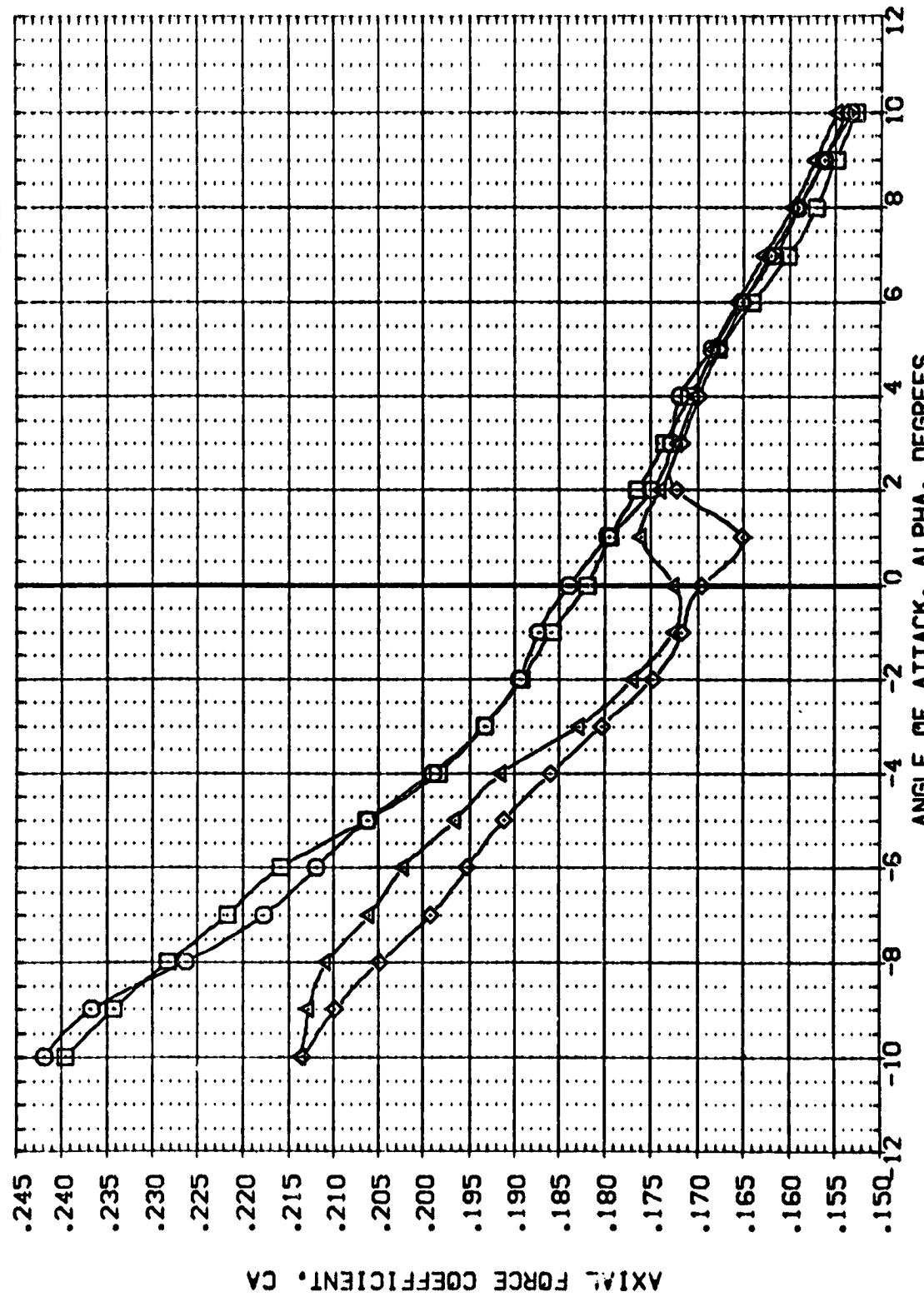
EFFECT OF UNSYMMETRICAL SRB SEPARATION W/NO PLUMES ON 0/ET CHARACT. ( $RNL=1.76$ )  
 $(\alpha)MACH = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL064) O AEDC VA-422(A-57). ORB/ET V/BOTH SRB  
 (RTL070) □ AEDC VA-422(A-57). ORB/ET V/BOTH SRB  
 (RTL074) X AEDC VA-422(A-57). ORB/ET V/BOTH SRB  
 (RTL078) ▲ AEDC VA-422(A-57). ORB/ET V/BOTH SRB



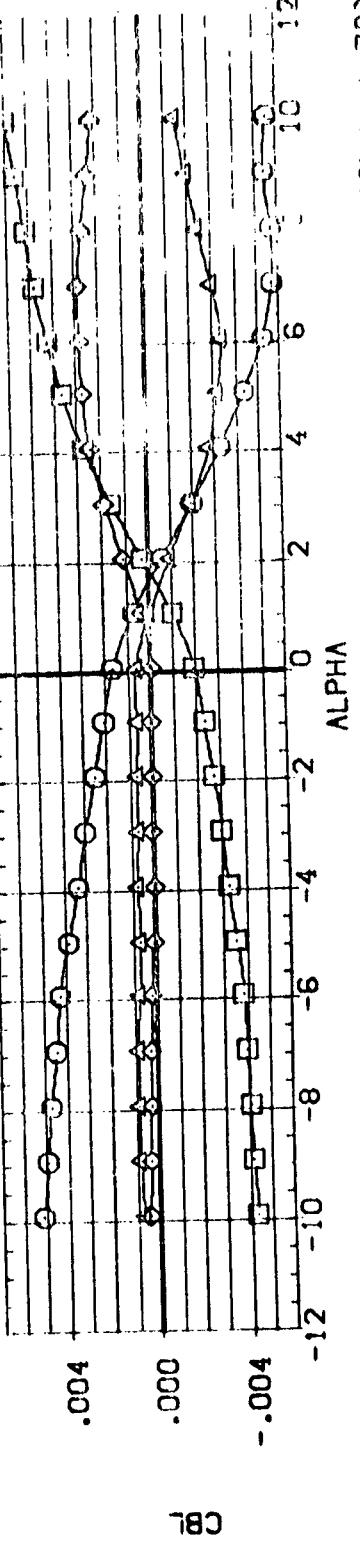
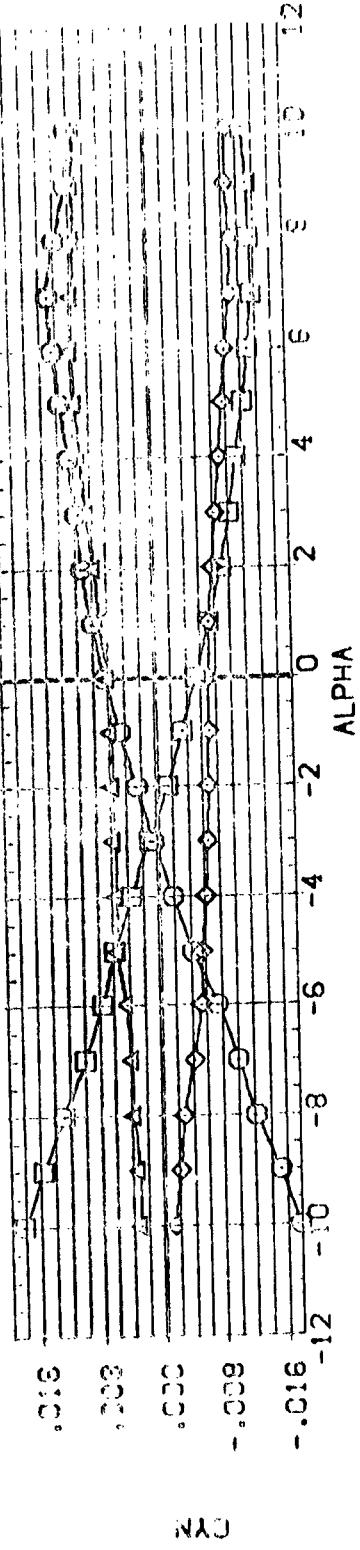
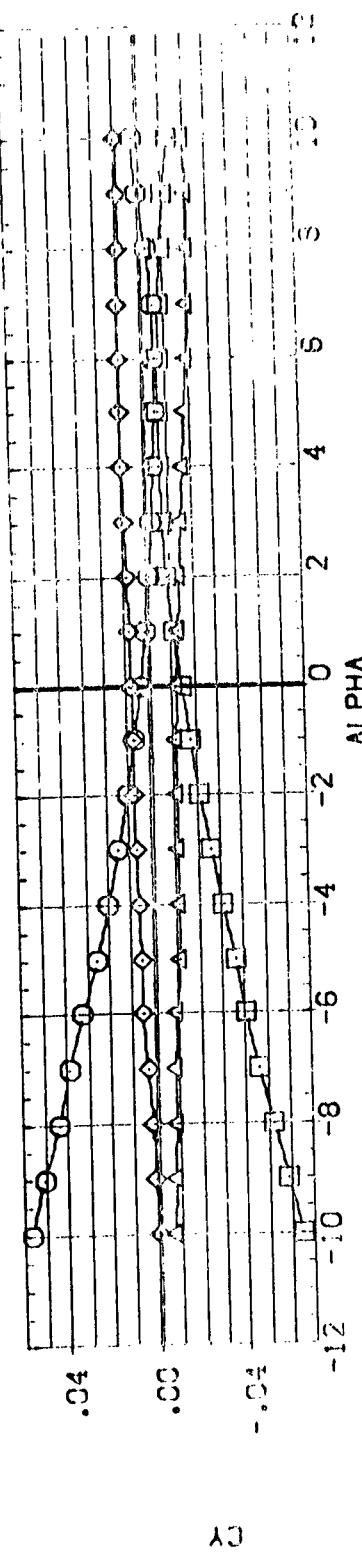
EFFECT OF UNSYMMETRICAL SRB SEPARATION W/NO PLUMES ON 0/ET CHRACT. ( $\delta RV_L = 5^\circ$ , 76)  
 CAJMACH = 4.50  
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DATA SET SYMB. CONFIGURATION DESCRIPTION SRPOS RVEL BETA REFERENCE INFORMATION  
 (RTL054) AEDC VA-422(IA-57) ORB/ET V/BOTH SRB 1.200 .760 .000 SREF 2680.0000 SQ.FT.  
 (RTL070) AEDC VA-422(IA-57) ORB/ET V/BOTH SRB 2.100 .760 .000 LREF 1250.3000 IN.  
 (RTL074) AEDC VA-422(IA-57) ORB/ET V/BOTH SRB 2.300 .760 .000 BREF 1252.3000 IN.  
 (RTL078) AEDC VA-422(IA-57) ORB/ET V/BOTH SRB 3.200 .760 .000 XMRP 1052.0000 IN.  
 YMRP 1047.0000 IN.  
 ZMRP 447.0000 IN.  
 SCALE .0100



EFFECT OF UNSYMMETRICAL SRB SEPARATION W/NO PLUMES ON 0/ET CHRACT. (RM/L=1.76)  
 (A)MACH = 4.50  
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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	REV/L	PIT-JET	SETA	REFERENCE INCHES	SC. FT.
PT_0541	AEDC VA-422([A-57]) OF3/ET V/BOTH SRB	1.200	1.760	.000	.000	REF	2550 .000
PT_0701	AEDC VA-422([A-57]) OF3/ET V/BOTH SRB	2.100	1.760	.000	.000	REF	1280 .000
PT_0741	AEDC VA-422([A-57]) OF3/ET V/BOTH SRB	2.300	1.760	.000	.000	REF	1320 .000
PT_0781	AEDC VA-422([A-57]) OF3/ET V/BOTH SRB	3.200	1.760	.000	.000	WIND	1250 .000
						SCALE	447 .000



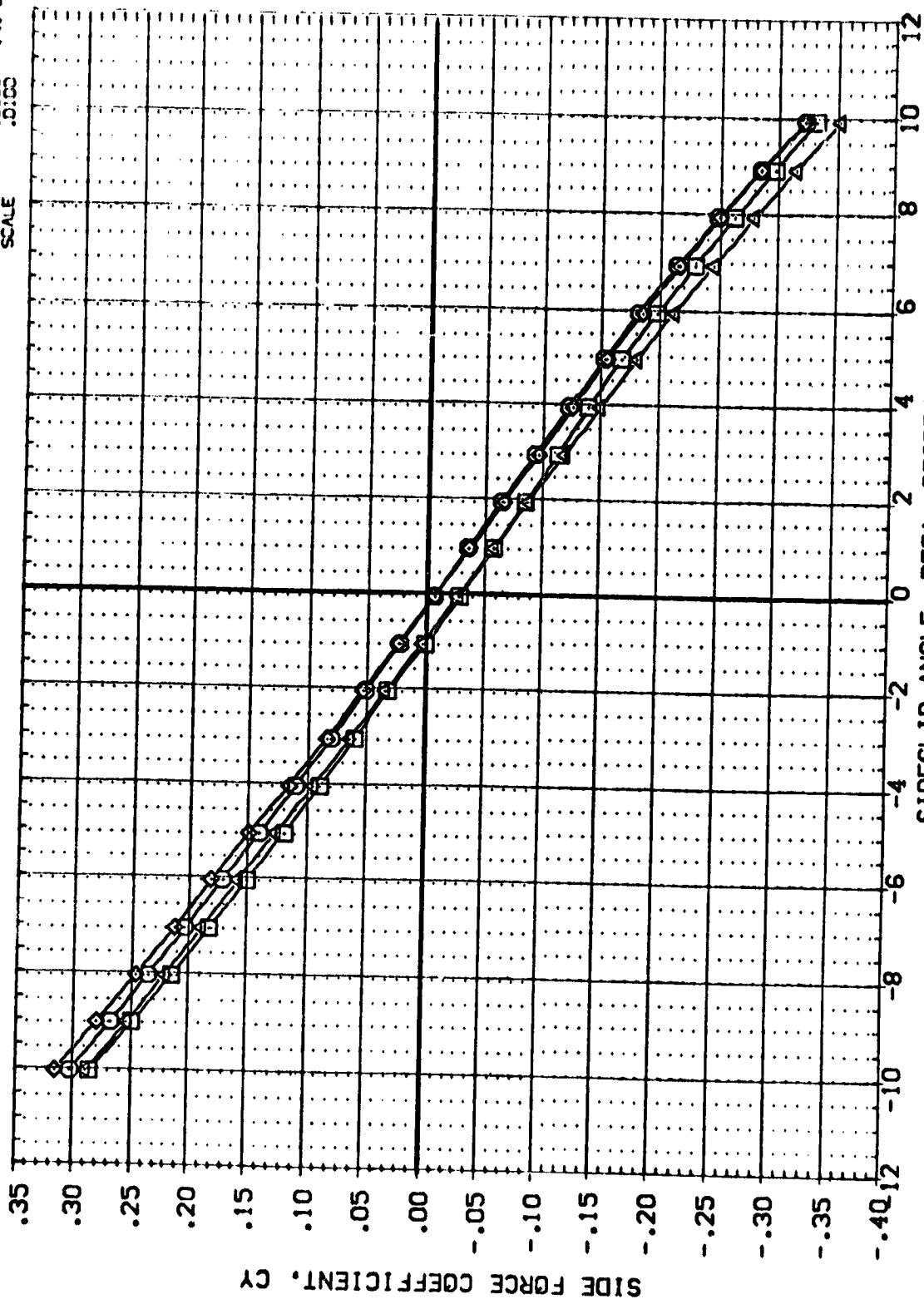
EFFECT OF UNSYMMETRICAL SRB SEPARATION W/NO FUMES ON O/ET CHART. (MACH = .76)

(A) MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RTLOG5]	AEDC VA-4-22(IA-57)	CRB/ET V/BOTH SRB
[RTLO75]	AEDC VA-4-22(IA-57)	CRB/ET V/BOTH SRB
[RTLO75]	AEDC VA-4-22(IA-57)	CRB/ET V/BOTH SRB
[RTLO75]	AEDC VA-4-22(IA-57)	CRB/ET V/BOTH SRB

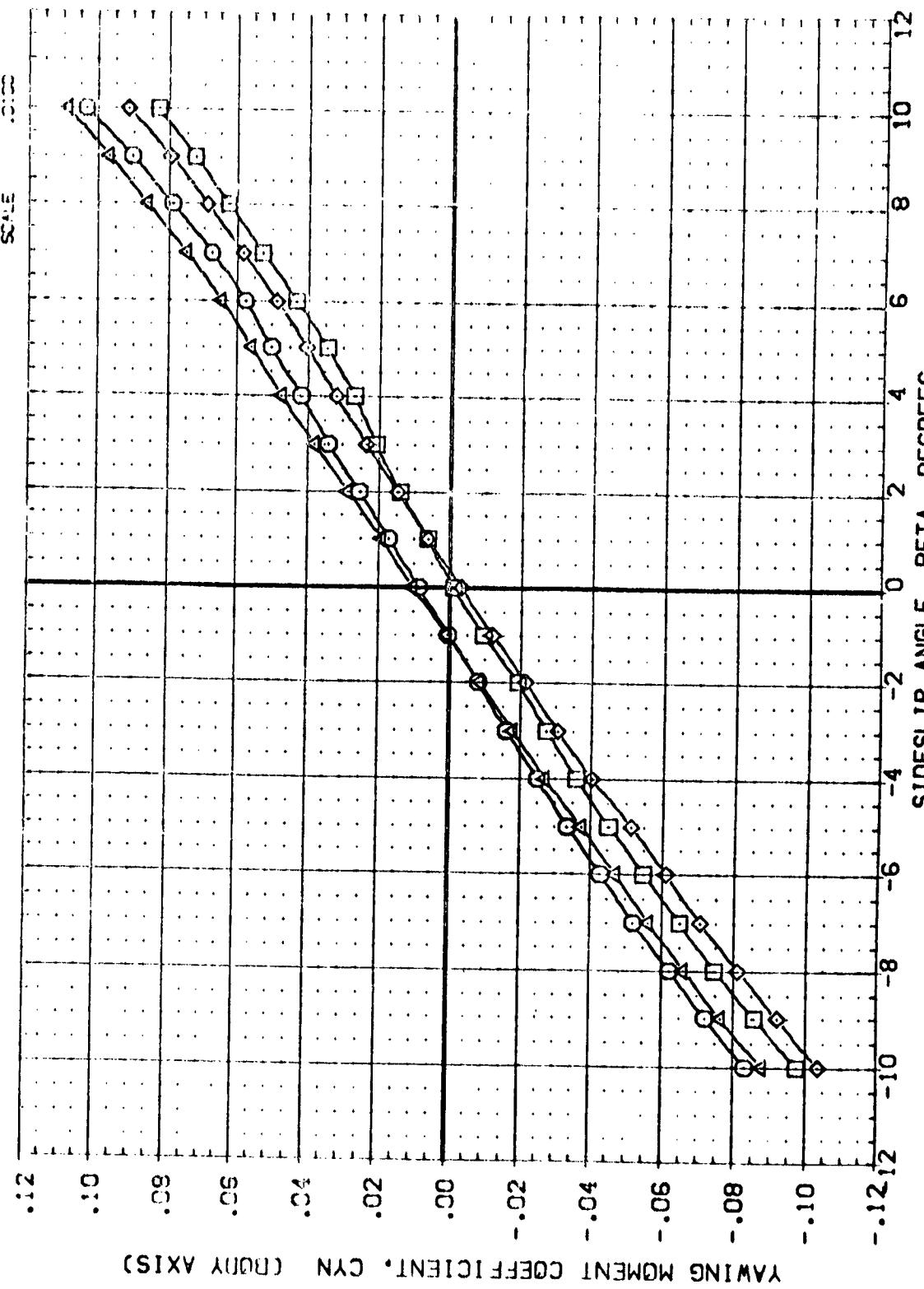
SRBPOS RV/L PT-JET ALPHA REFERENCE INFORMATION  
 1.200 .760 .000 .000 SRREF 2890.0000 SC.FT.  
 2.100 .760 .000 .000 LREF 1290.3000 X  
 2.300 .760 .000 .000 RREF 1290.3000 Y  
 3.200 .760 .000 .000 XRP 152.0000 Z  
 ZRP 447.0000 ZSCALE .0125



EFFECT OF UNSYMMETRICAL SRB SEPARATION W/NO PLUMES ON 0/ET CHARACT. (RN/L=1.76)  
 (A)MACH = 4.50  
 PAGE 55

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLOSS) AEDC VA-122 [IA-57] ORBIT V/BOTH SRB  
 (RTLC71) AEDC VA-422 [IA-57] ORBIT V/BOTH SRB  
 (RTLC75) AEDC VA-422 [IA-57] SRB/ET V/BOTH SRB  
 (RTLC79) AEDC VA-422 [IA-57] SRB/ET V/BOTH SRB

SPEEDS ROLL PITCH PLANE REFERENCE IN SEPARATION  
 1.200 1.750 .000 SREF 2680 3000  
 2.000 1.750 .000 SREF 1280 3000  
 2.300 1.750 .000 SREF 1280 3000  
 3.200 1.750 .000 YREF 1280 3000  
 SCALE 447 3200

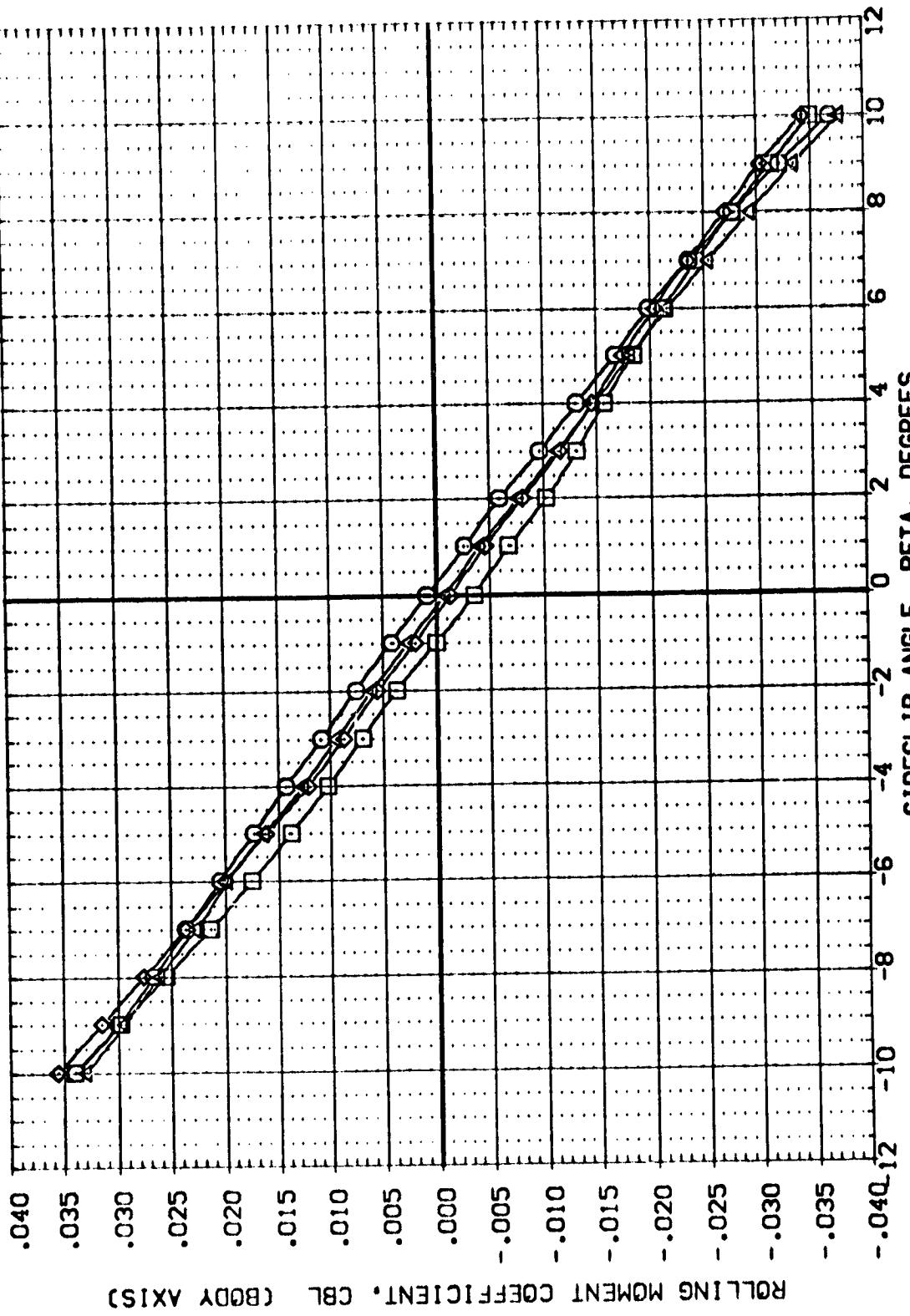


EFFECT OF UNSYMMETRICAL SRB SEPARATION W/NO PLUMES ON Q/ET CHRACT. (MACH = 4.50)  
 (A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

R'L065	AEDC VA-422 [A-57], ORB/ET V/BOTH SRB
R'L071	AEDC VA-422 [A-57], ORB/ET V/BOTH SRB
R'L075	AEDC VA-422 [A-57], ORB/ET V/BOTH SRB
R'L079	AEDC VA-422 [A-57], ORB/ET V/BOTH SRB

SRBPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 1.200 1.760 .000 SREF 2630.000 SC.F.  
 2.100 1.760 .000 LREF 1295.350  
 2.300 1.760 .000 BREF 1295.350  
 3.200 1.760 .000 XRP 1292.350  
 .200 .200 .000 YRP 44.000  
 ZRP SCALE



EFFECT OF UNSYMMETRICAL SRB SEPARATION W/NO PLUMES ON Q/ET CHRACT. (RNL/L=1.76)

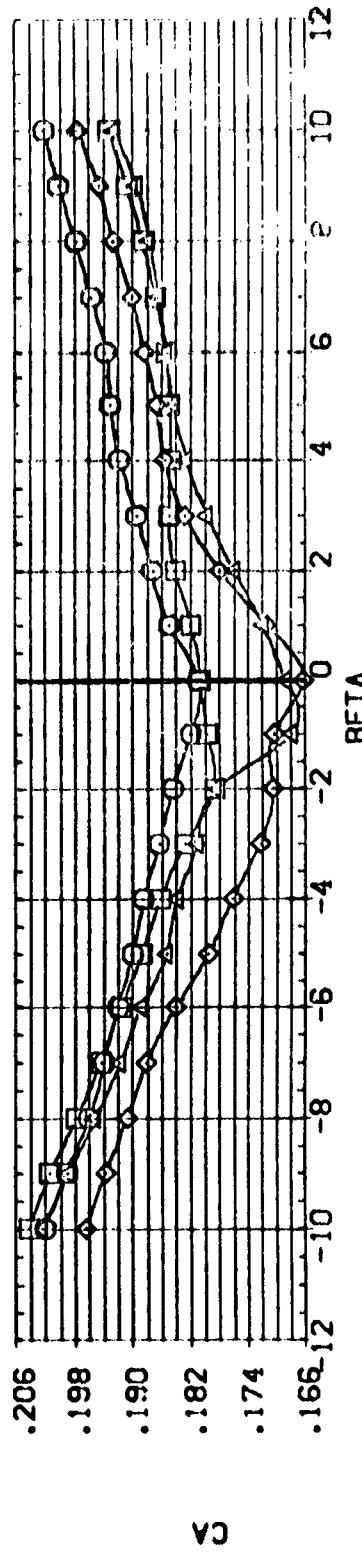
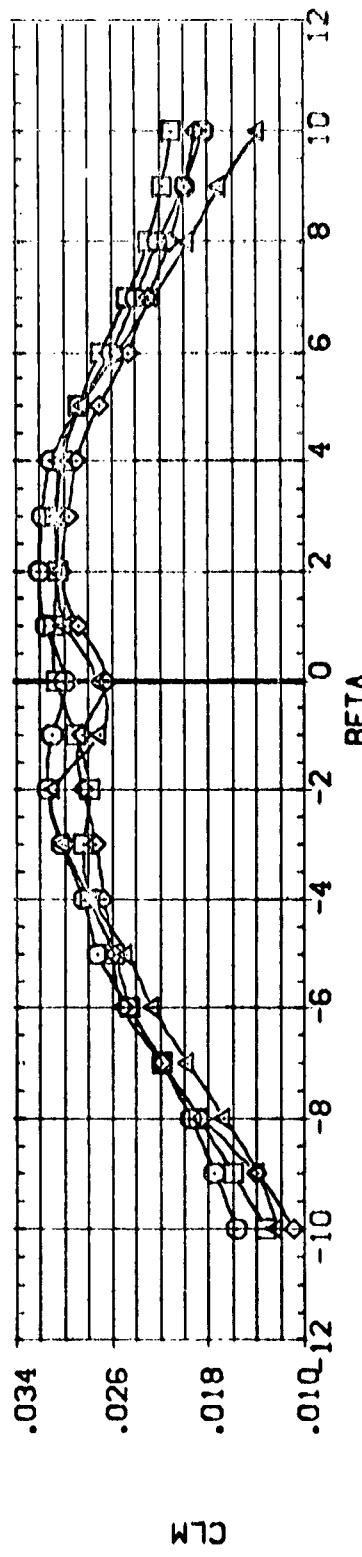
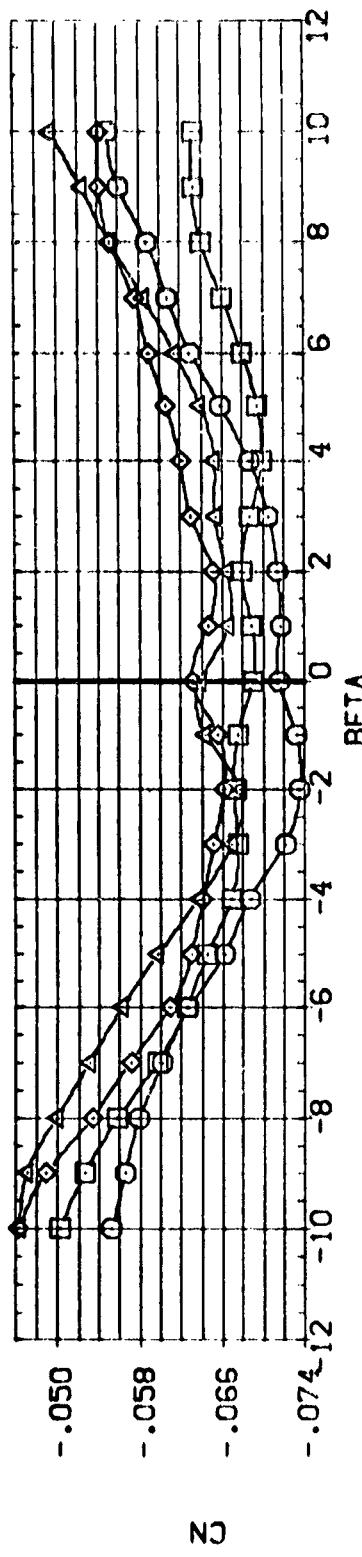
(A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RTLO65]	O	VA-422 [A-571] ORB/ET V/BOTH SRB
[RTL071]	△	AEDC VA-422 [A-571] ORB/ET V/BOTH SRB
[RTL075]	X	AEDC VA-422 [A-571] ORB/ET V/BOTH SRB
[RTL079]	×	AEDC VA-422 [A-571] ORB/ET V/BOTH SRB

STEPPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 1.200 .760 .000 .000 SREF 2690.000 SRF.  
 2.100 .760 .000 .000 LREF 250.300 NREF  
 2.300 .760 .000 .000 BREF 250.300 NREF  
 3.200 .760 .000 .000 XREF 152.100 NREF  
 ZREF 44.700 NREF  
 SCALE

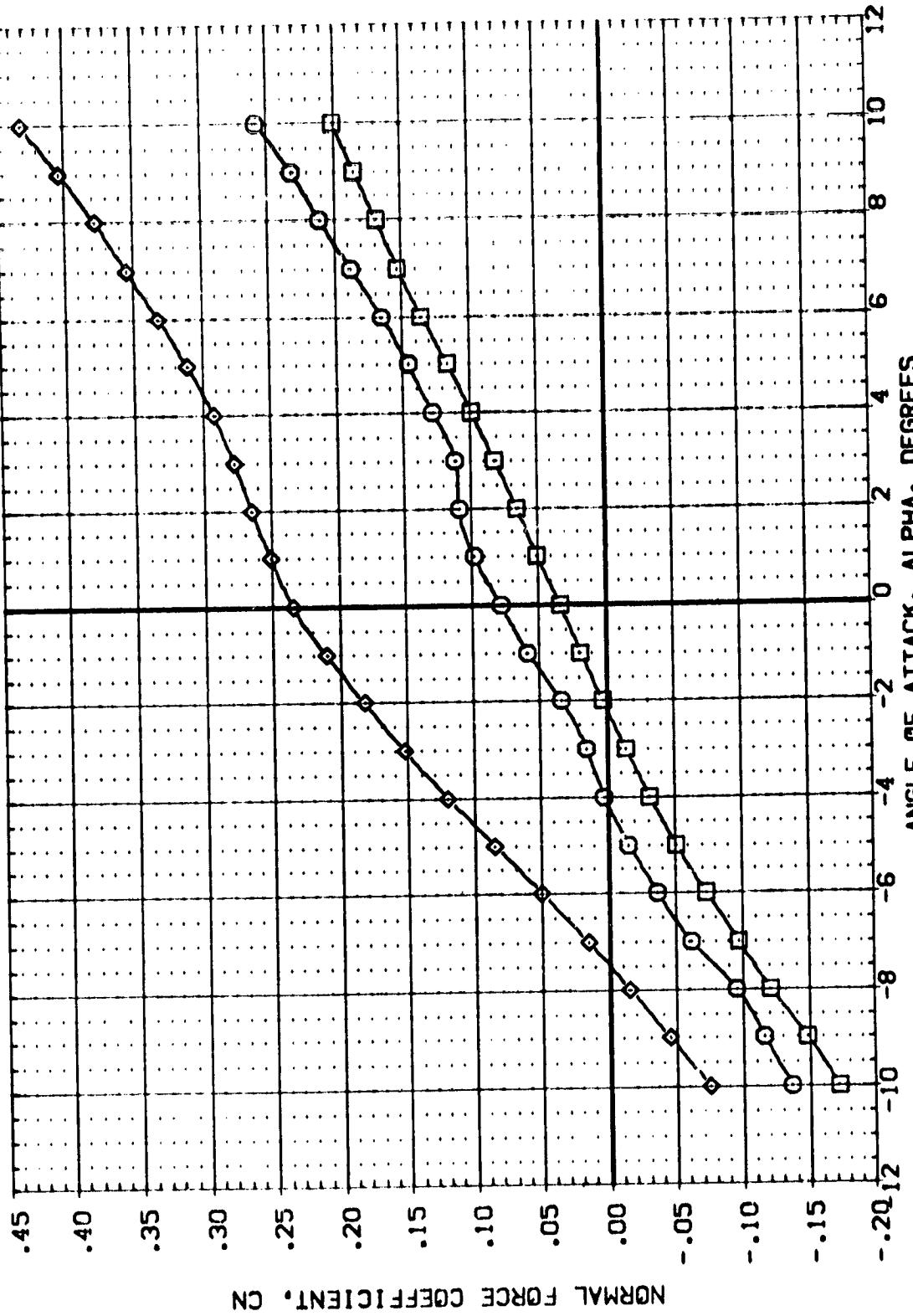


EFFECT OF UNSYMMETRICAL SRB SEPARATION W/NO PLUMES ON 0/ET CHARACT.  $(M_1/L = 1.75)$   
 $(A)_MACH = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL007)	AEDC VA-422 (IA-57).
(RT-C15)	AEDC VA-422 (IA-57).
(RT-C23)	AEDC VA-422 (IA-57).

SRPOS RNL PT-JET BETA REFERENCE INFORMATION  
 .100 1.400 1500.000 .000 2500.000 SC. FT.  
 .200 1.400 1500.000 .000 1250.000  
 .300 1.400 1500.000 .000 1250.000  
 XREF 1250.000  
 YREF 1250.000  
 ZREF 1250.000  
 XRP 447.35  
 YRP 447.35  
 ZRP 447.35  
 SCALE

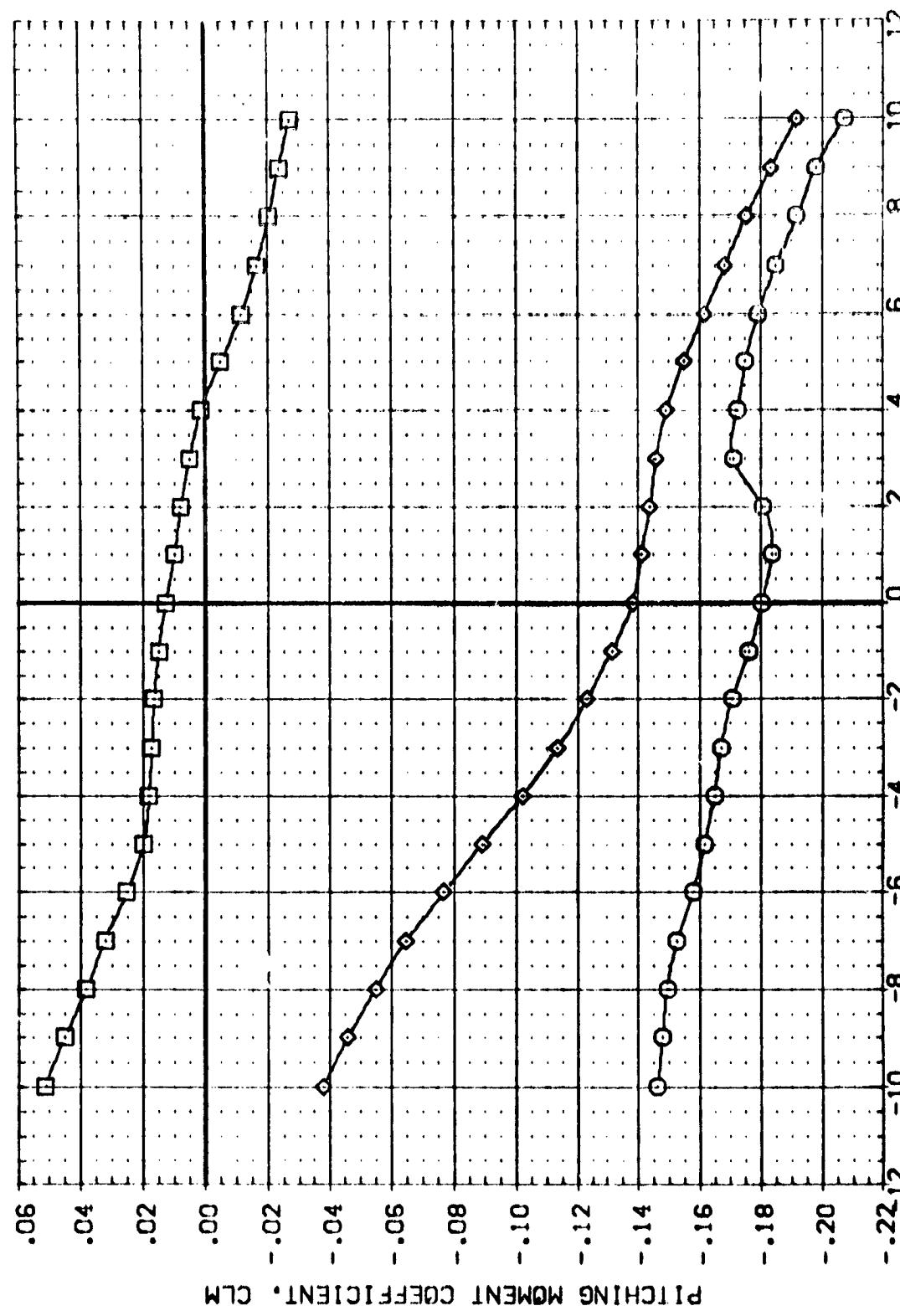


EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.4)

(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [RTLO07] AEDC VA-422(A-57) OBSET WRIGHT SRB  
 [RTLO15] AEDC VA-422(A-57) OBSET WRIGHT SRB  
 [RTLC23] AEDC VA-422(A-57) OBSET WRIGHT SRB

SHOPS RNL PT-JET BETA  
 .100 1.400 1500.000 .300  
 .200 1.400 1500.000 .300  
 .300 1.400 1500.000 .300  
 REFERENCE INTERFACING  
 SREF 2600.000 SC-FT.  
 SREF 2600.000 SC-FT.  
 SREF 2600.000 SC-FT.  
 SREF 2600.000 SC-FT.  
 XDP 1052.000 SC-FT.  
 XDP 1052.000 SC-FT.  
 ZDP 447.000 SC-FT.  
 ZDP 447.000 SC-FT.  
 SCALE .2130



EFFECT OF ONLY ONE SRB SEPARATION ON O/ET CHRACT. (R/N/L=1.4)

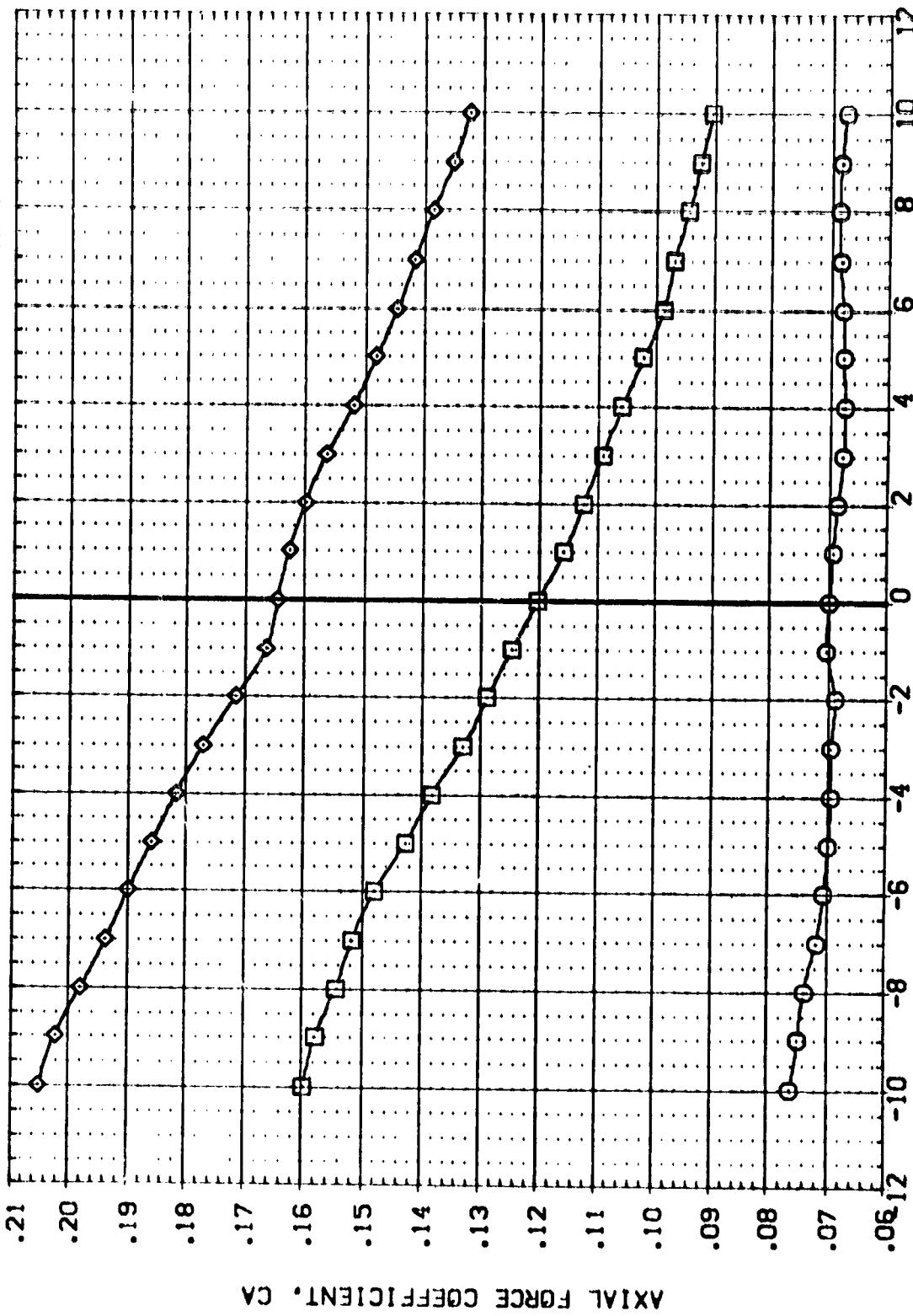
ATTACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RTL007]	$\square$	AEDC VA-422 [A-57]. OB/ET V/RIGHT SRB
[RTL015]	$\diamond$	AEDC VA-422 [A-57]. CR/ET V/RIGHT SRB
[RTL023]	$\circ$	AEDC VA-422 [A-57]. CR/ET V/RIGHT SRB

SRBPOS RNL PT-JET BETA REFERENCE INFORMATION  
 .100 1.400 1500.000 .000 SREF 2530.000 SQ.FT.  
 .220 1.400 1500.000 .000 SREF 1250.300  
 .300 1.400 1500.000 .000 SREF 1250.300  
 .350 1.400 1500.000 .000 SREF 1250.300  
 VROP 447.838  
 ZLE 2.20



EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHART. (RNL/L=1.4)

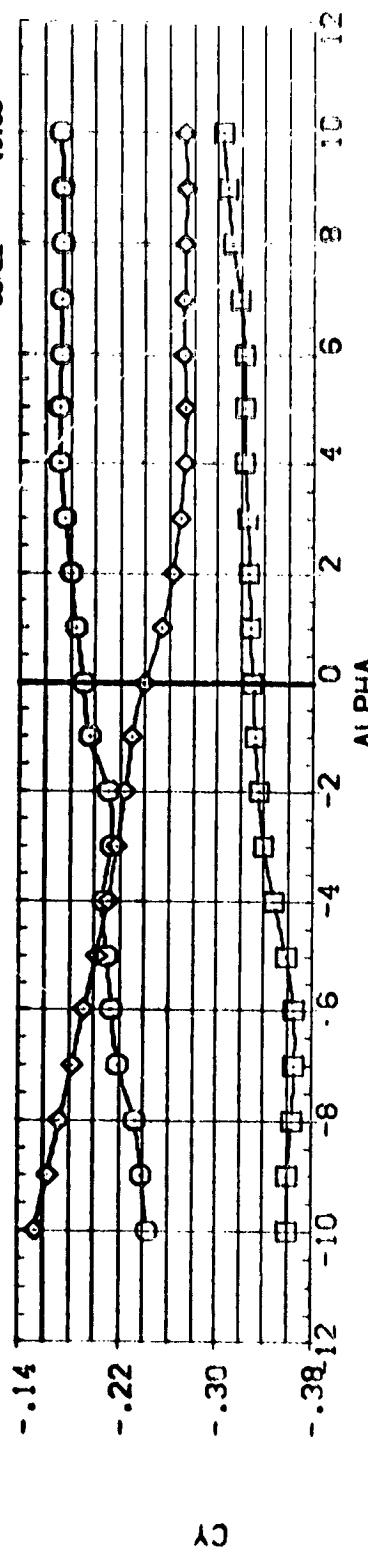
(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

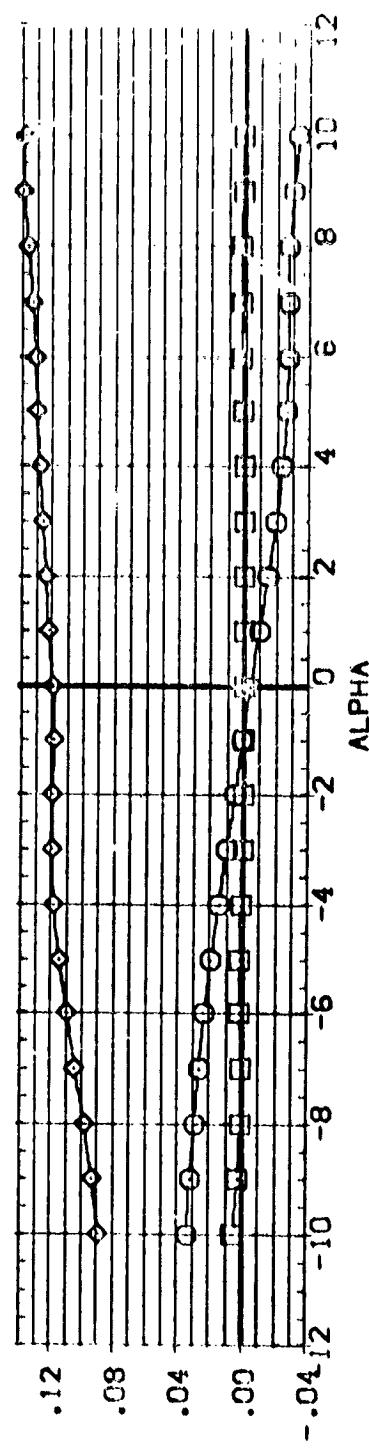
(RTL007)	AEDC	VA-422[IA-57].	GREAT	WRIGHT	SRB
(RTL015)	AEDC	VA-422[IA-57].	GREAT	WRIGHT	SRB
(RTL023)	AEDC	VA-422[IA-57].	GREAT	WRIGHT	SRB

SRB-TESTS RVL PT-JET BETA REFERENCE INFORMATION

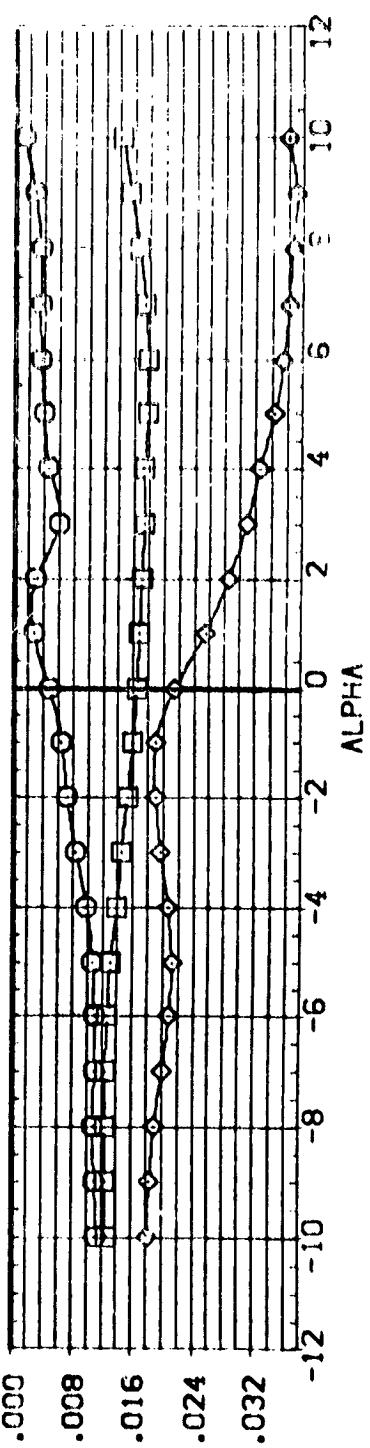
.100	1.400	1500.000	.000	SREF	2630.000	SRB
.200	1.400	1500.000	.200	LREF	1250.000	SRB
.300	1.400	1500.000	.300	BREF	1250.000	SRB
				XREF	1520.000	SRB
				VREF	1447.000	SRB
				SCE	1270.000	SRB



CY



CYN



CBL

EFFECT OF ONLY ONE SRB SEPARATION ON O/ET CHARACT. (CY/L=1.40)

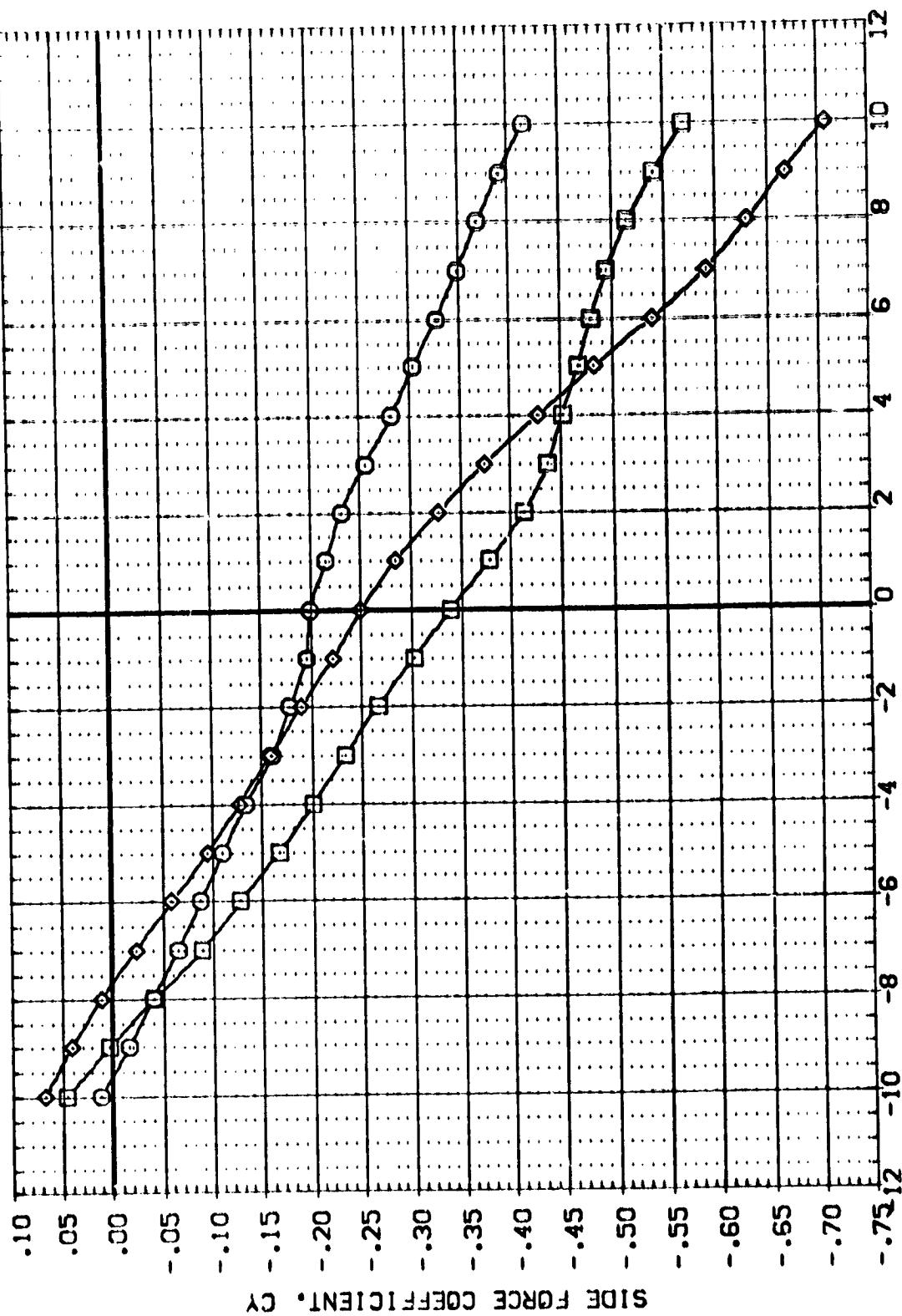
(A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

CRLL008	AEDC VA-422[(A-57)]	CR/SET V/RIGHT SRB
CRLL016	AEDC VA-422[(A-57)]	CR/SET V/RIGHT SRB
CRLLC24	AEDC VA-422[(A-57)]	CR/SET V/RIGHT SRB

REFERENCE INFORMATION  
S.R.F.  
REF. 2600, 3000  
.450 3000  
.450 3000  
.450 3000  
SCALE 4.47  
2000

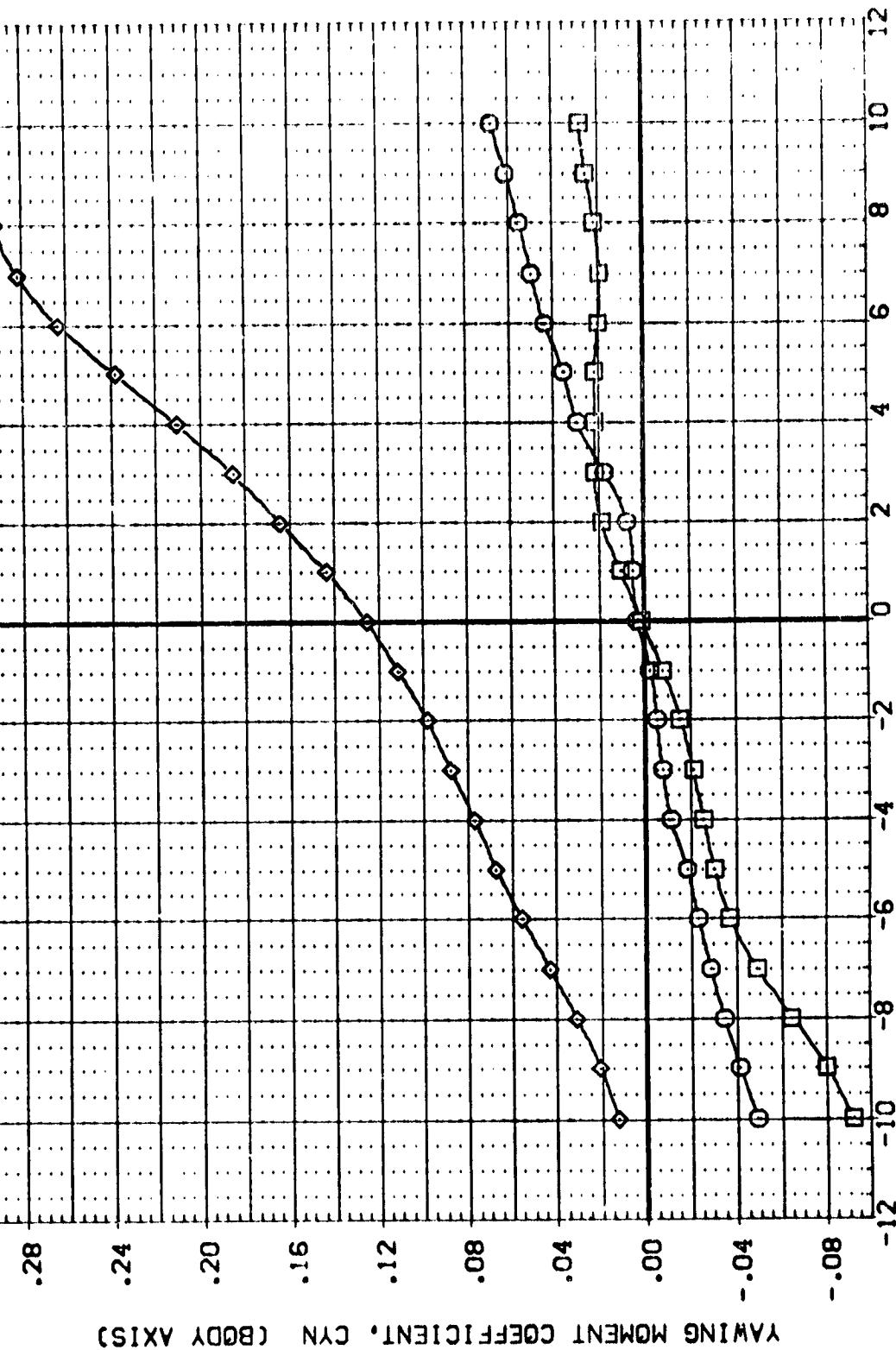


EFFECT OF ONLY ONE SRB SEPARATION ON C/ET CHARACTER. (R/N/L=1.4)

$$C_{AJMACH} = 4.50$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL008) AEDC VA-4221(A-57). GRB/ET VARIANT SRB  
 (RTL016) AEDC VA-4221(A-57). GRB/ET VARIANT SRB  
 (RTL024) AEDC VA-4221(A-57). GRB/ET VARIANT SRB

STEP(S)	RNL	PT-JET	ALPHA	REFERENCE INFORMATION
.100	1.400	1500.000	.000	SREF 2650.0000 SQ.FT.
.200	1.400	1500.000	.000	LREF 1250.3000
.300	1.400	1500.000	.000	SREF 1250.3000
				XREF 1552.0000
				YREF 447.0000
				ZREF .0100
				SCALE .0100

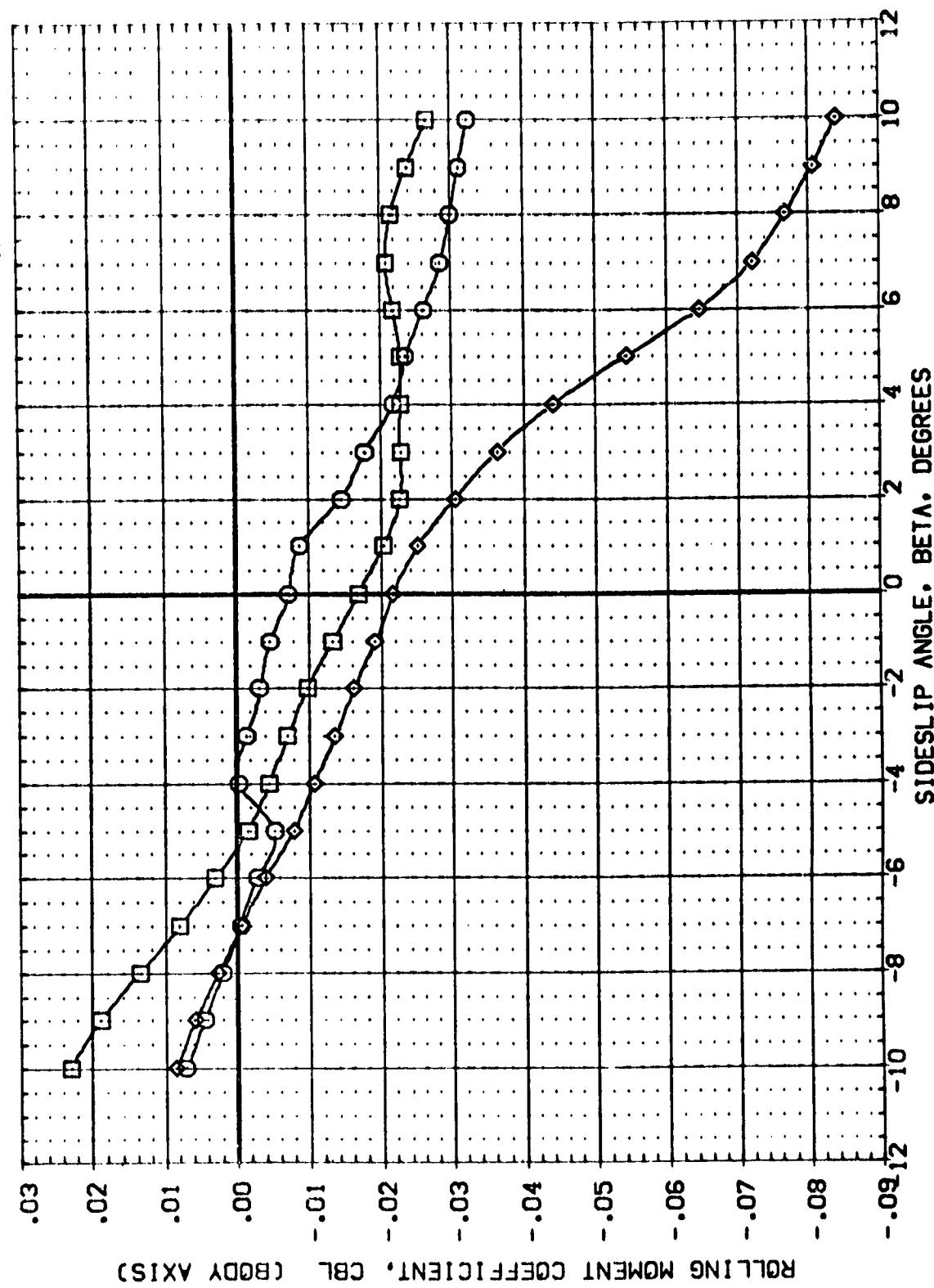


EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (CRN/L=1.4)

(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION SRB  
 CRT\_008 AEDC VA-422([A-57], CRB/ET WRIGHT SRB  
 CRT\_016 AEDC VA-422([A-57], CRB/ET WRIGHT SRB  
 CRT\_024 AEDC VA-422([A-57], CRB/ET WRIGHT SRB

SRV/L PT-JET ALPHA REFERENCE INFORMATION  
 .100 1,400 1500.000 0.000 SREF 2650.000 SD.FT.  
 .200 1,400 1500.000 0.000 LREF 1250.3C30  
 .300 1,400 1500.000 0.000 BREF 1250.3C30  
 VREF 1350.3C30  
 ZREF 147.3C30  
 SCALE



EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHRACT. (RN/L=1.4)  
 CA/MACH = 4.50

## DATA SET SPEED

CONFIGURATION DESCRIPTION  
 [CRT LOGO] AEDC VA-42211A-57]: ORB/ET VRIGHT SRB  
 [CRT LOGO] AEDC VA-42211A-57]: ORB/ET VRIGHT SRB  
 [CRT LOGO] AEDC VA-42211A-57]: ORB/ET VRIGHT SRB

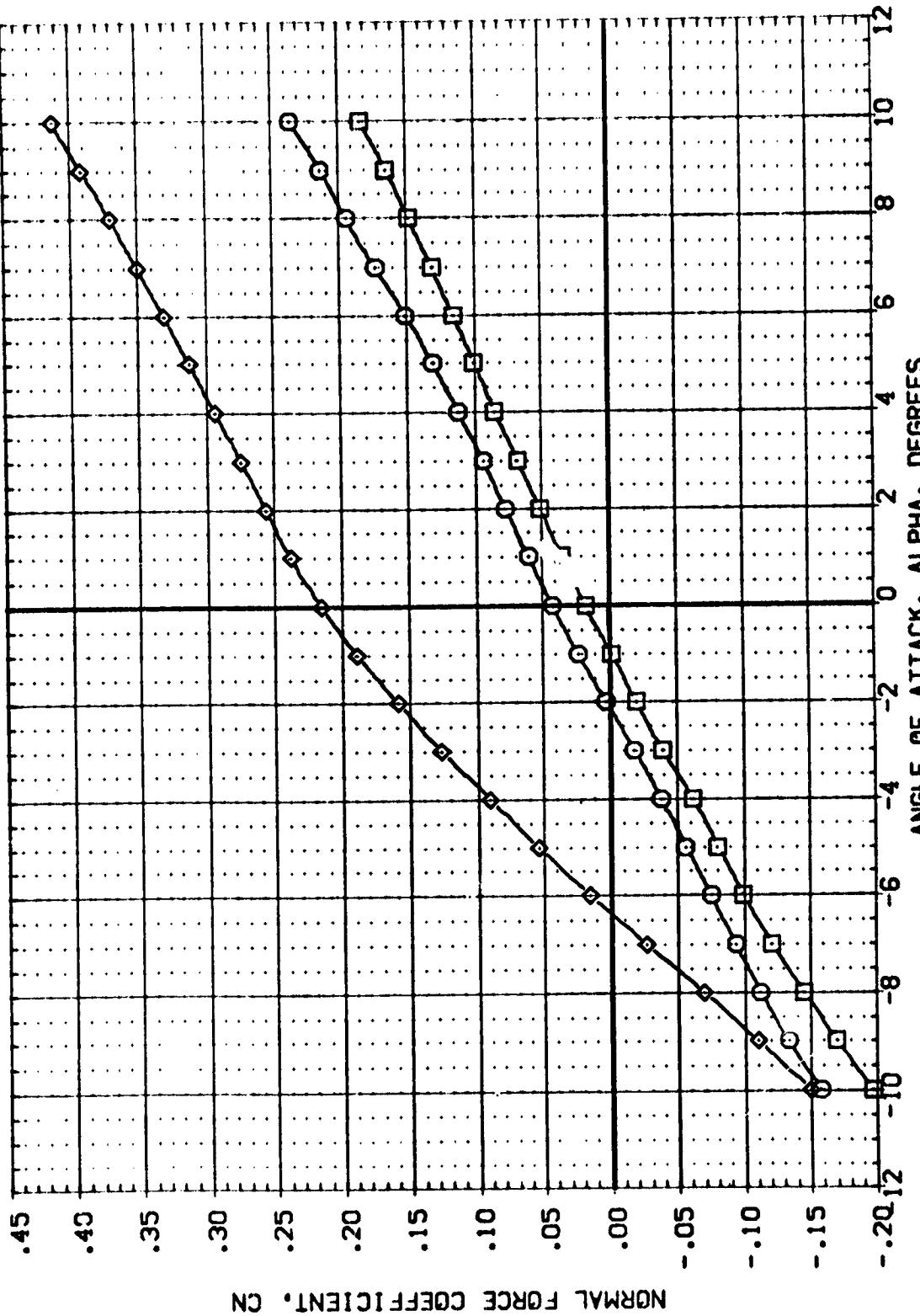
SPEED	RNL	PT-JET	ALPHA	REFERENCE SEPARATION
.100	1.400	1500.000	.000	26.90 .0000 SCFT.
.200	1.400	1500.000	.000	12.90 .3000 SCFT.
.300	1.400	1500.000	.000	2.90 .3000 SCFT.
				13.52 .0000 SCFT.
				17.42 .0000 SCFT.
				27.30 .0000 SCFT.
				44.7 .0000 SCFT.
				51.00 .0000 SCFT.

SCALE

SCFT.

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (PT,L013) AEDC VA-422(IA-57); GRAV/ET VRIGHT SRB  
 (PT,L021) AEDC VA-422(IA-57); ORB/ET VRIGHT SRB  
 (PT,L029) AEDC VA-422(IA-57); GRAV/ET VRIGHT SRB

SRBPOS RV/L PT-JET BETA REFERENCE INFORMATION  
 .100 1.760 1500 .000 SREF 2690 .0000 SQ.FT.  
 .200 1.760 1500 .000 LREF 1280 .3000 IN.  
 .300 1.760 1500 .000 BREF 1052 .3000 X<sup>T</sup>  
 XRP 447 .0000 Y<sup>T</sup>  
 ZRP .0100 Z<sup>T</sup>  
 SCALE



EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76, PT-JET=1500)

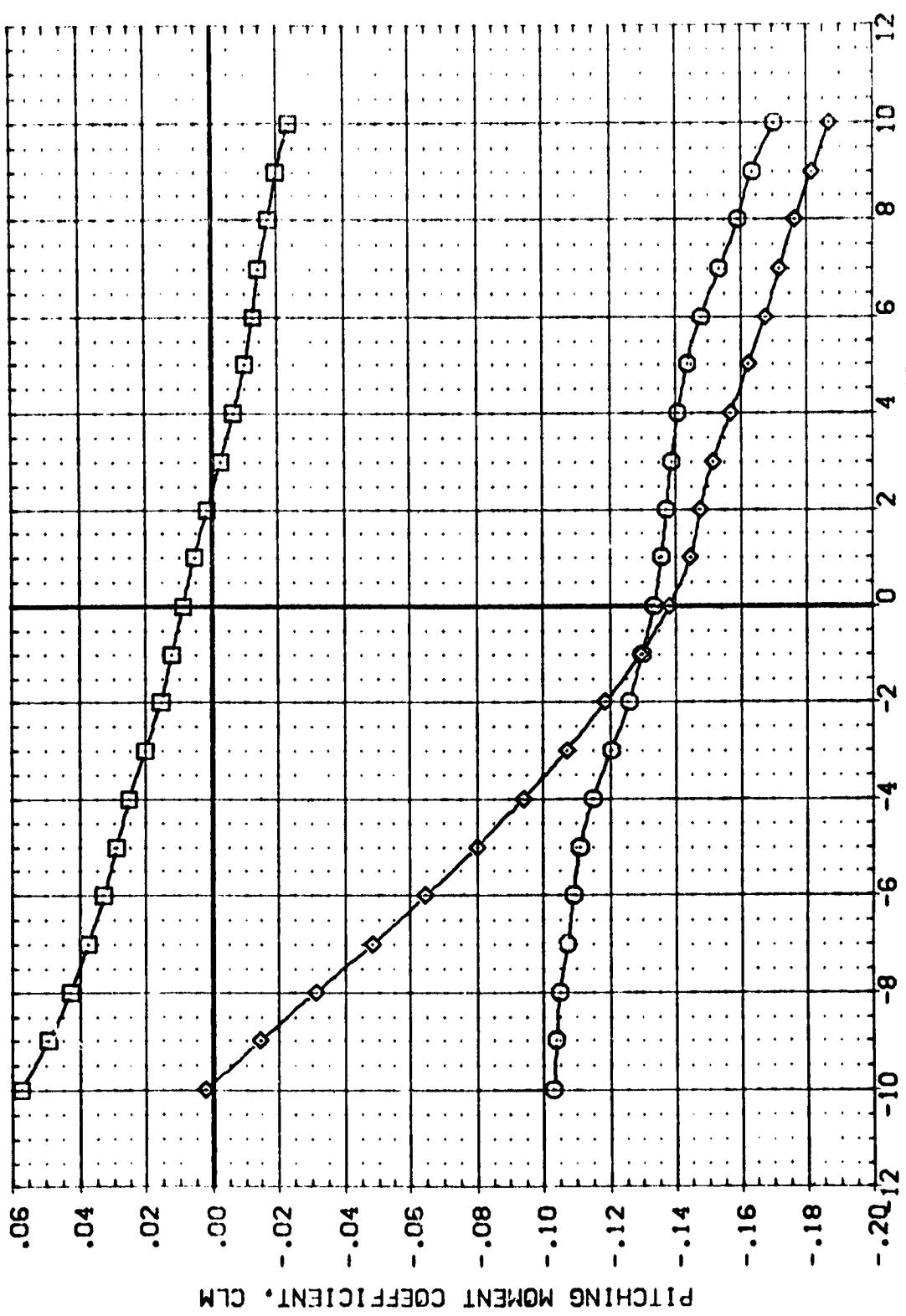
(A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL013)	AEDC	VA-422(IA-57),	ORBIT	VRIGHT	SRB
(RTL021)	AEDC	VA-422(IA-57),	ORBIT	VRIGHT	SRB
(RTL029)	AEDC	VA-422(IA-57),	ORBIT	VRIGHT	SRB

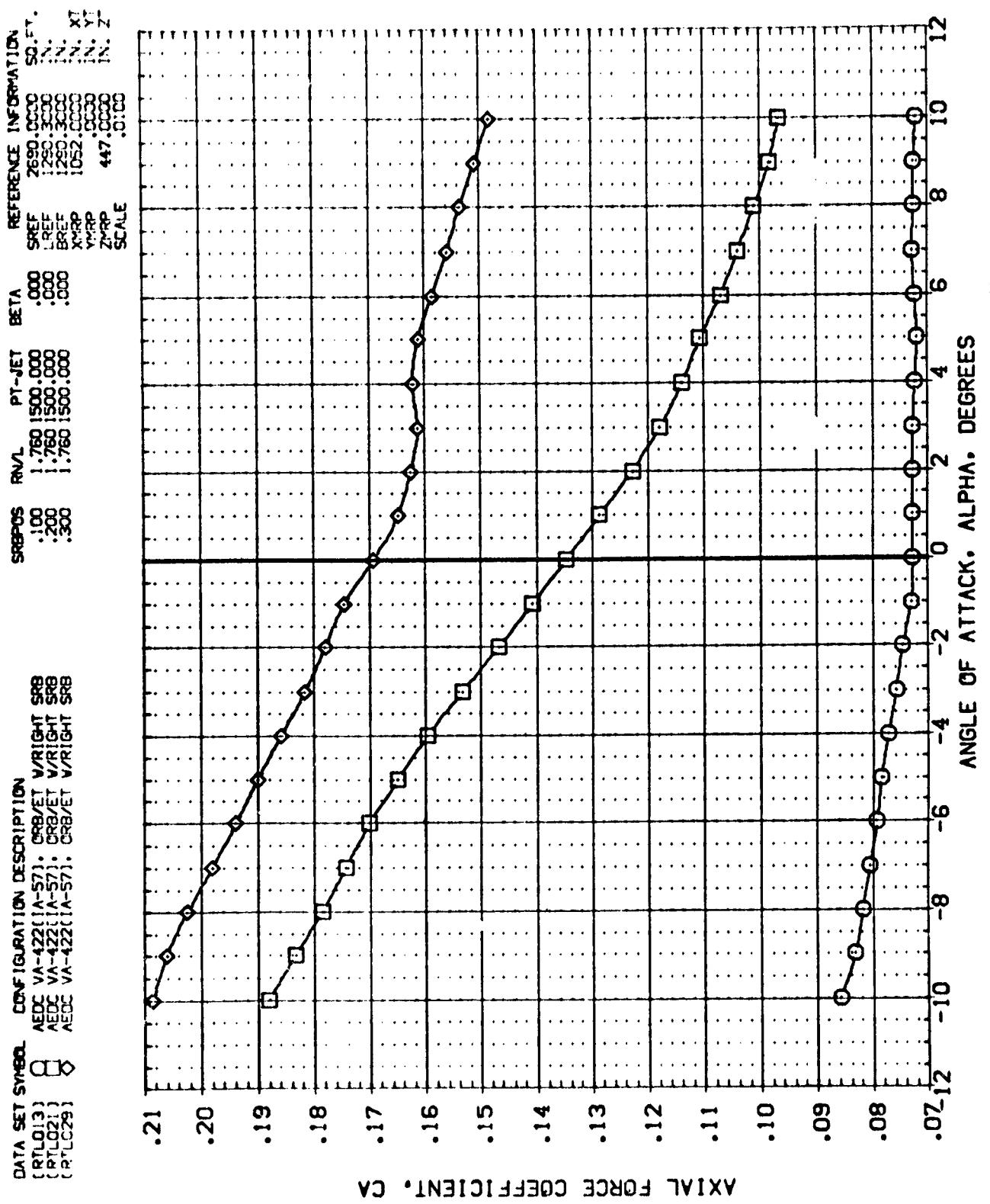
SRPOS	RNL	PT-JET	BETA	REFERENCE INFORMATION
.100	1.760	1500.000	.000	SREF 2690.0000 SQ.FT.
.200	1.760	1500.000	.000	LREF 1290.3000 IN.
.300	1.760	1500.000	.000	BREF 1290.3000 IN.
				XREF 1C52.0000 IN.
				YREF 447.0000 IN.
				ZREF .0100 IN.
				SCALE .0100



EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76, PT-JET=1500)

(A)<sub>MACH</sub> = 4.50

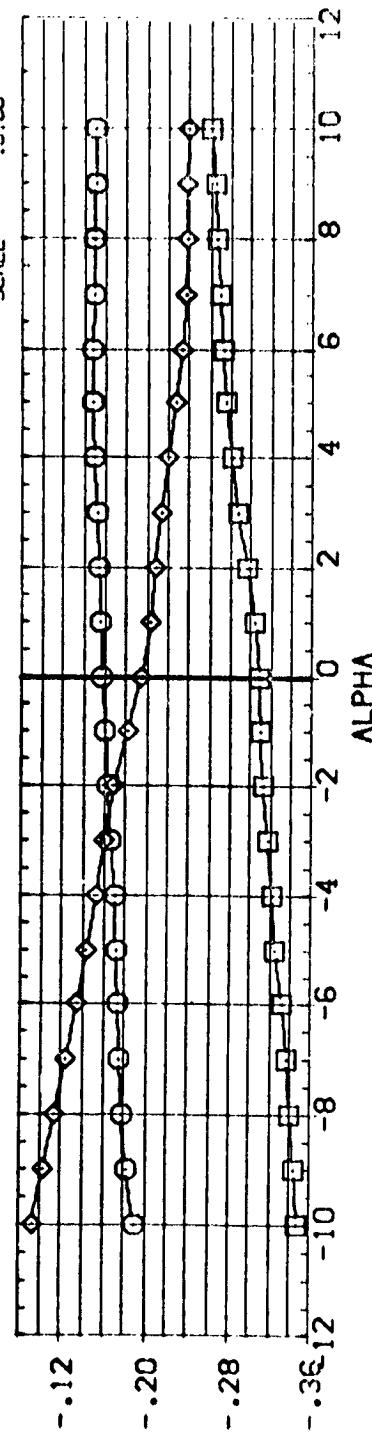
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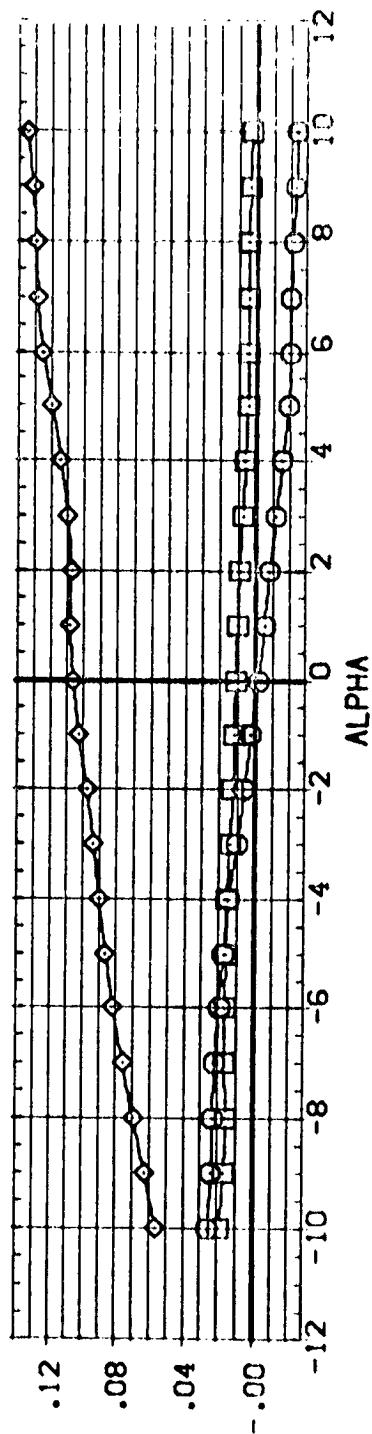
EFFECT OF ONLY ONE SRB SEPARATION ON C/ET CHRACT. (RN/L=1.76, PT-JET=1500)  
(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRTL01(3) AEDC VA-422(IA-57); 698/ET WEIGHT SRB  
 CRTL02(1) AEDC VA-422(IA-57); 698/ET WEIGHT SRB  
 CRTL329 AEDC VA-422(IA-57); 698/ET WEIGHT SRB

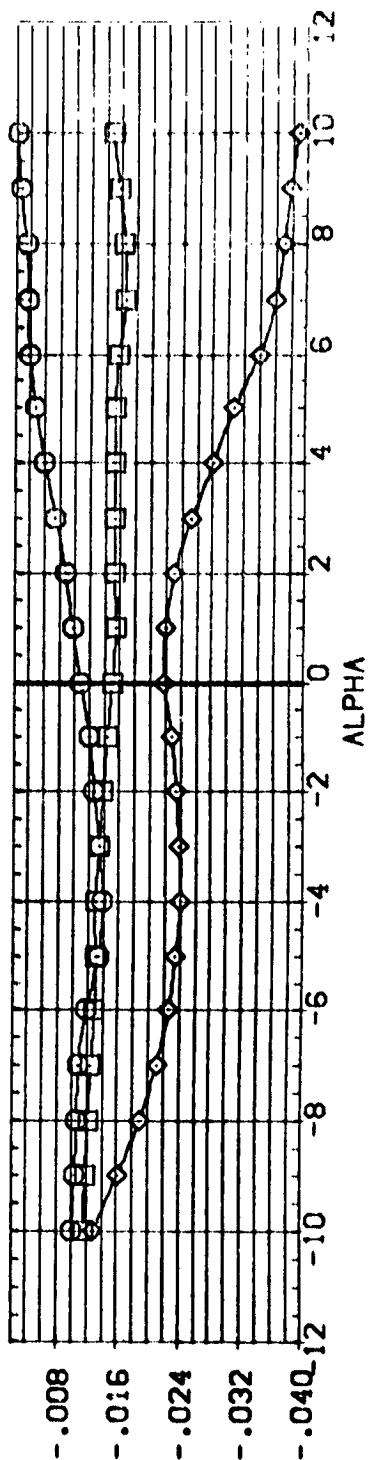
STEP(S)	RNL	PT-JET	BETA	REFERENCE IN SEPARATION
.100	1.760	1500.000	.000	SREF
.200	1.760	1500.000	.000	LREF
.300	1.760	1500.000	.000	BREF
				XREF
				YREF
				ZREF
				447.128
				SCALE



CxN



CBL

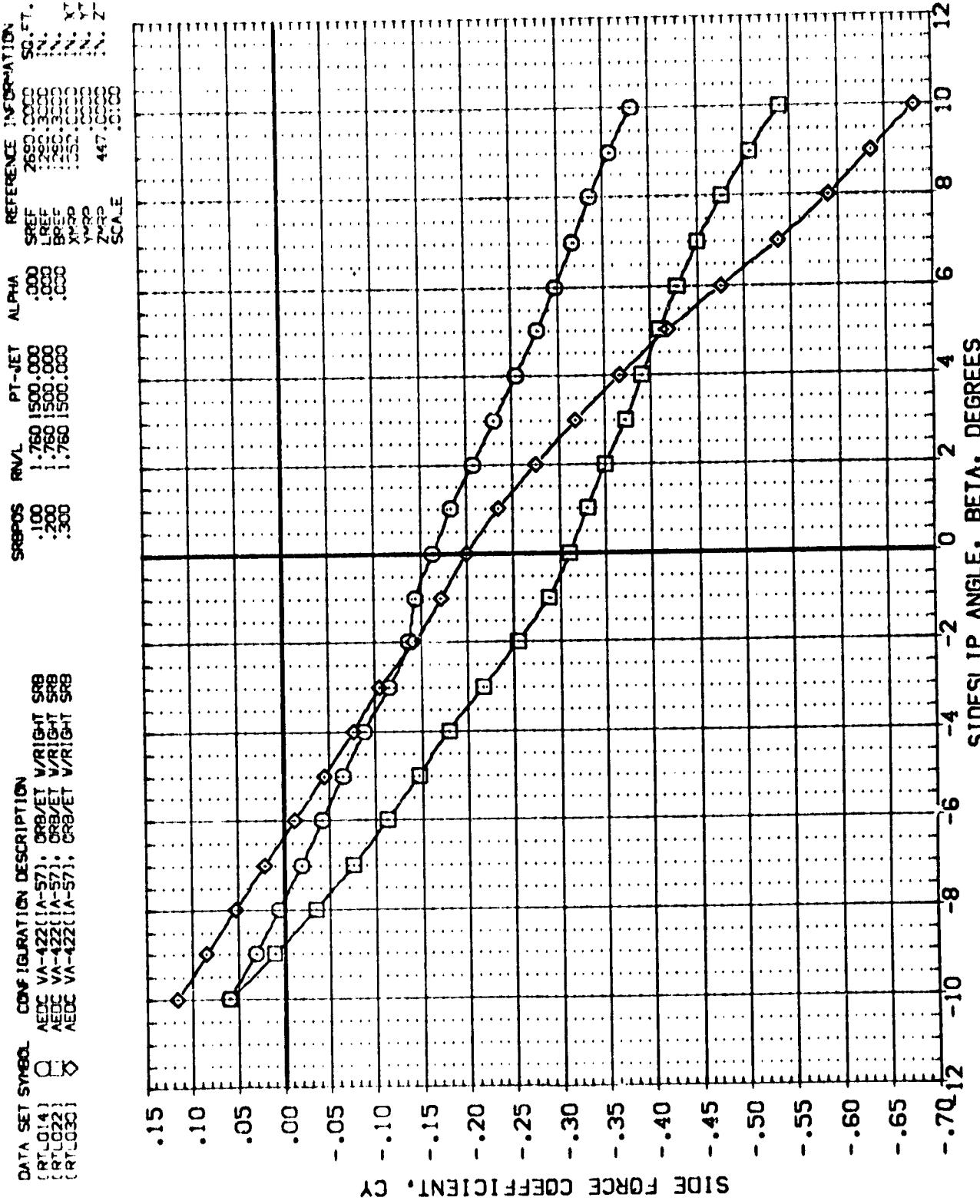


CY

EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76, PT-JET=1500)

(A)MACH = 4.50

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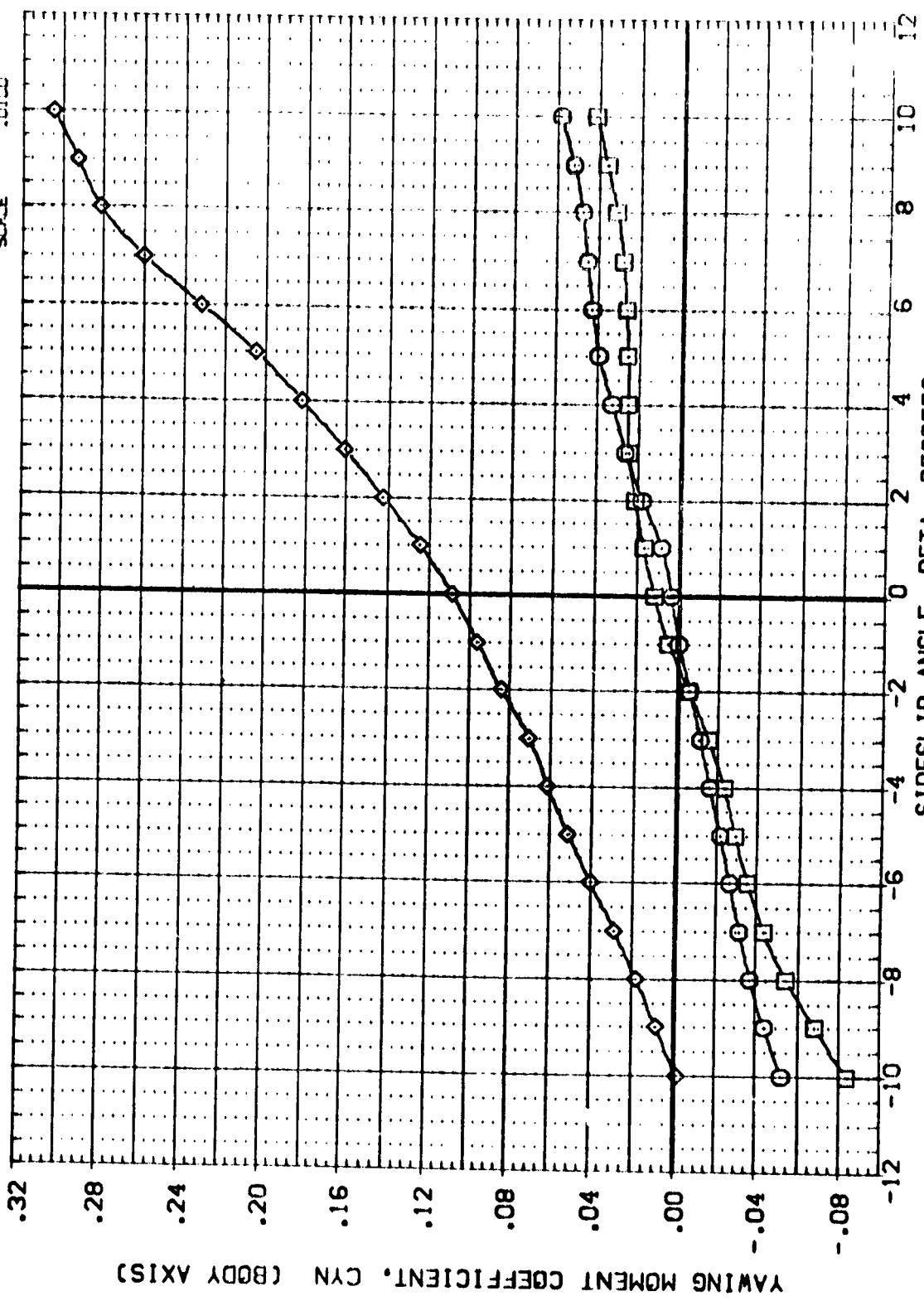


EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RNL/L=1.76, PT-JET=1500)

(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL014) AEDC VA-422(IA-57); GRB/ET WRIGHT SRB  
 (RTL02) AEDC VA-422(IA-57); GRB/ET WRIGHT SRB  
 (RTL03) AEDC VA-422(IA-57); GRB/ET WRIGHT SRB

SRPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 .100 1.760 1500.000 .000 SIZE 2620.000 SC.FT.  
 .200 1.760 1500.000 .000 LREF 280.300  
 .300 1.760 1500.000 .000 BRGF 280.300  
 XMP 152.000  
 YMP 447.2000  
 ZMP 27.27  
 SCAL 1.5

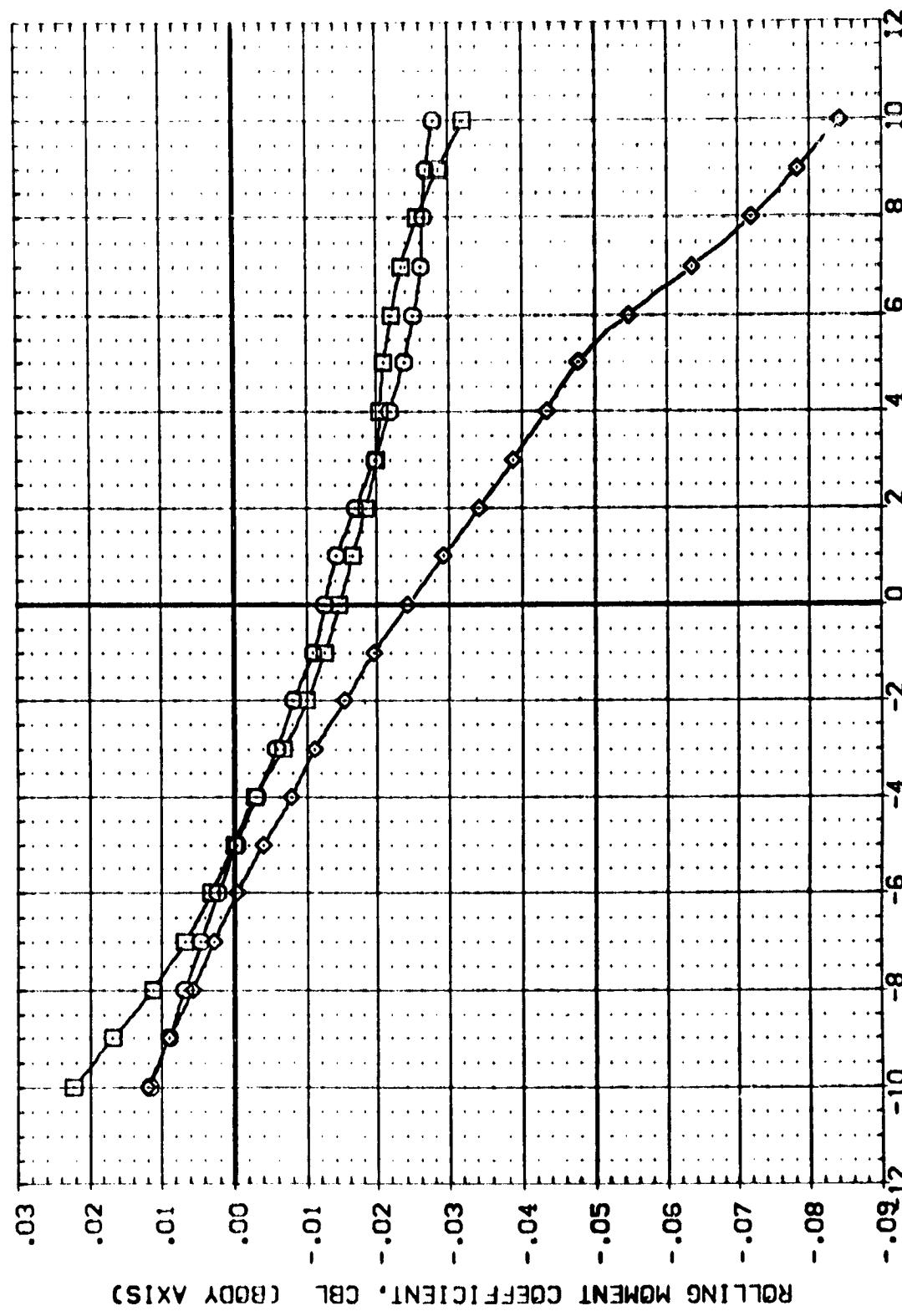


EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RNL=1.76, PT-JET=1500)  
 $(\Delta)V_{MACH} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL014)	□	SRB
AEDC VA-4221A-571	○	SRB/ET WRIGHT
(RTL022)	△	SRB
AEDC VA-4221A-571	×	SRB/ET WRIGHT
(RTL030)	◇	SRB
AEDC VA-4221A-571	◊	SRB/ET WRIGHT

SRBPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 .100 1.760 1500.000 SPREF 2650.000 SC.FT.  
 .200 1.760 1500.000 ZREF 1250.300 XFT  
 .300 1.760 1500.000 ZREF 1250.300 ZFT  
 ZMACH 447.350 ZSCALE .510



EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RNL/L = 1.76, PT-JET=1500)

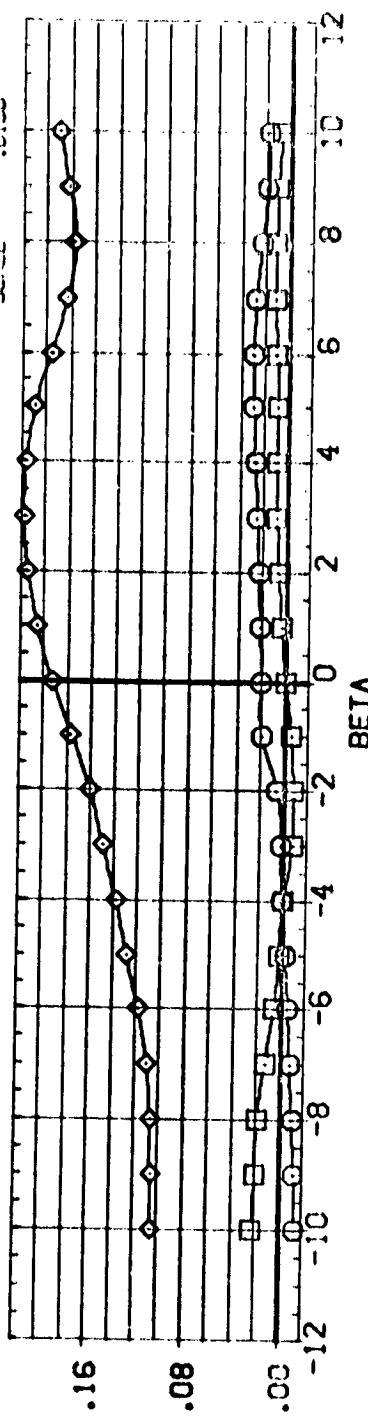
(A)<sub>MACH</sub> = 4.50

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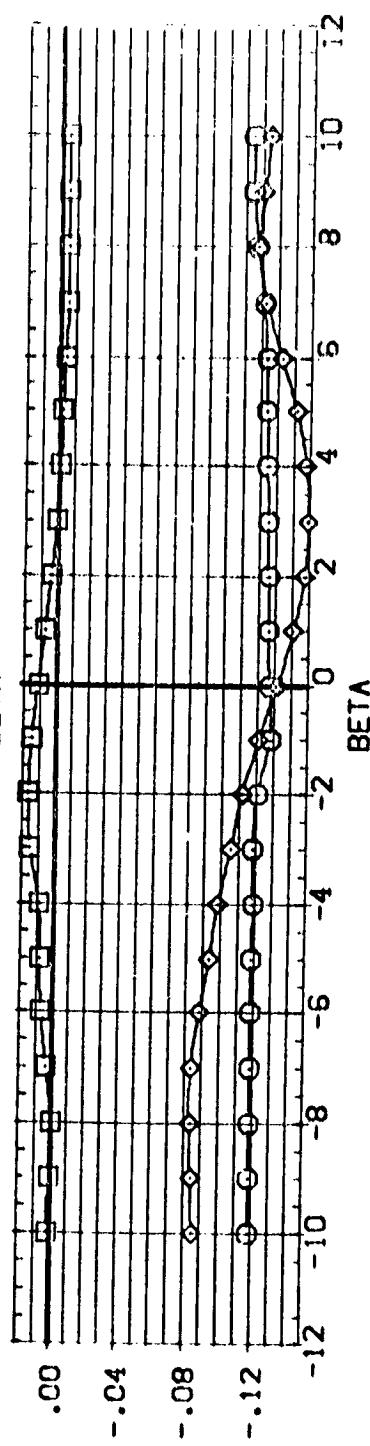
DATA SET SYMBOL CONFIGURATION DESCRIPTION

[CRTL014]	AEDC VA-422([A-57])	ORBIT/SET VARIATION SRB
[CRTL022]	AEDC VA-422([A-57])	ORBIT/SET VARIATION SRB
[CRTL023]	AEDC VA-422([A-57])	Grav/ET VARIATION SRB

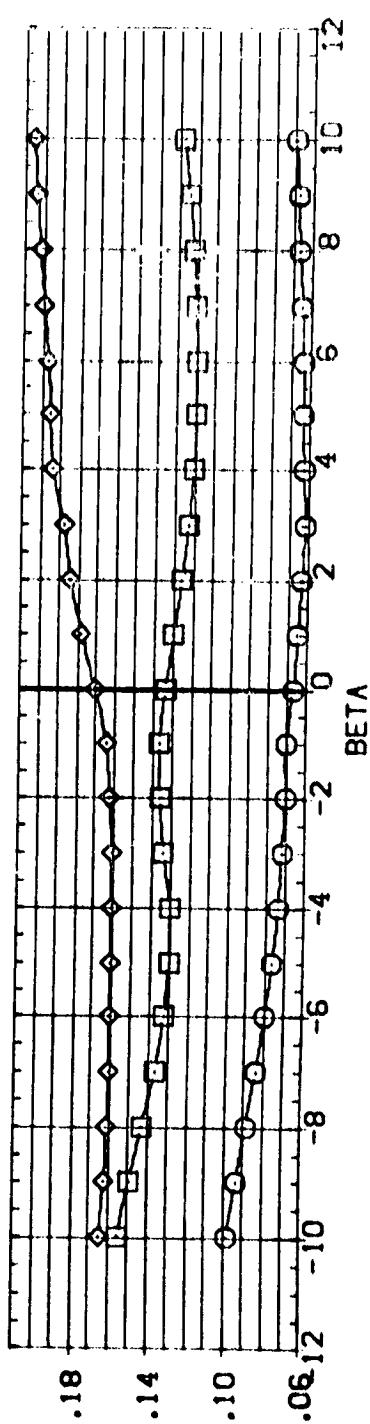
SRBPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 .100 1.760 1500.000 .000 SREF 260.0000 SQ.FT.  
 .200 1.760 1500.000 .000 SREF 130.3000 N.  
 .300 1.760 1500.000 .000 SREF 120.3000 N.  
 X-PP 152.3000 N.  
 Y-PP 152.3000 N.  
 Z-PP 447.0000 N.  
 SCALE .010



$C_n$



$CL_M$

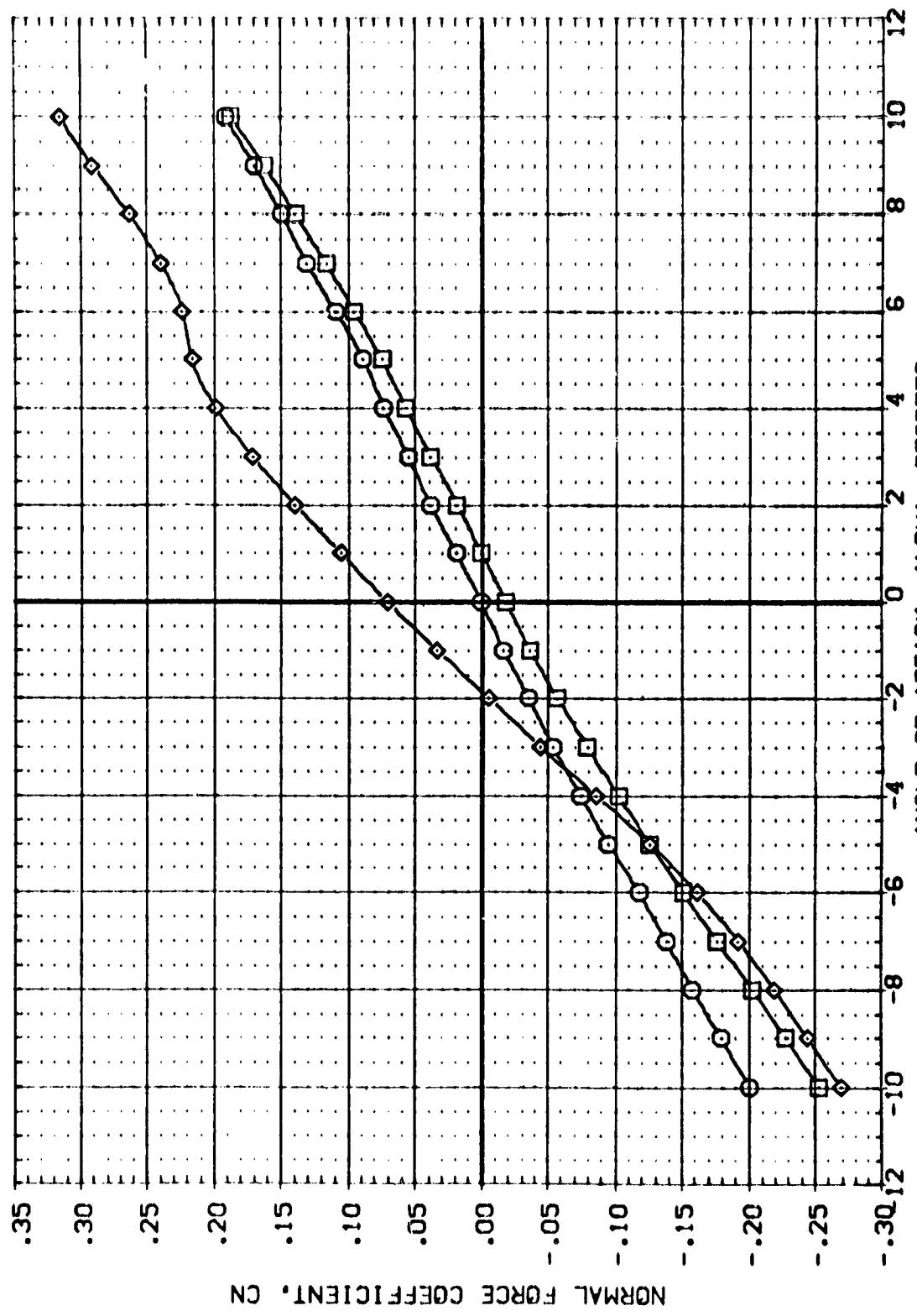


$CA$

EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.75, PT-JET=1500)  
 $(\alpha)_MACH = 4.50$

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ERT,L011) AEDC VA-422(LA-57). GRB/ET V/RIGHT SRB  
 (ERT,L019) AEDC VA-422(LA-57). GRB/ET V/RIGHT SRB  
 (ERT,L227) AEDC VA-422(LA-57). GRB/ET V/RIGHT SRB

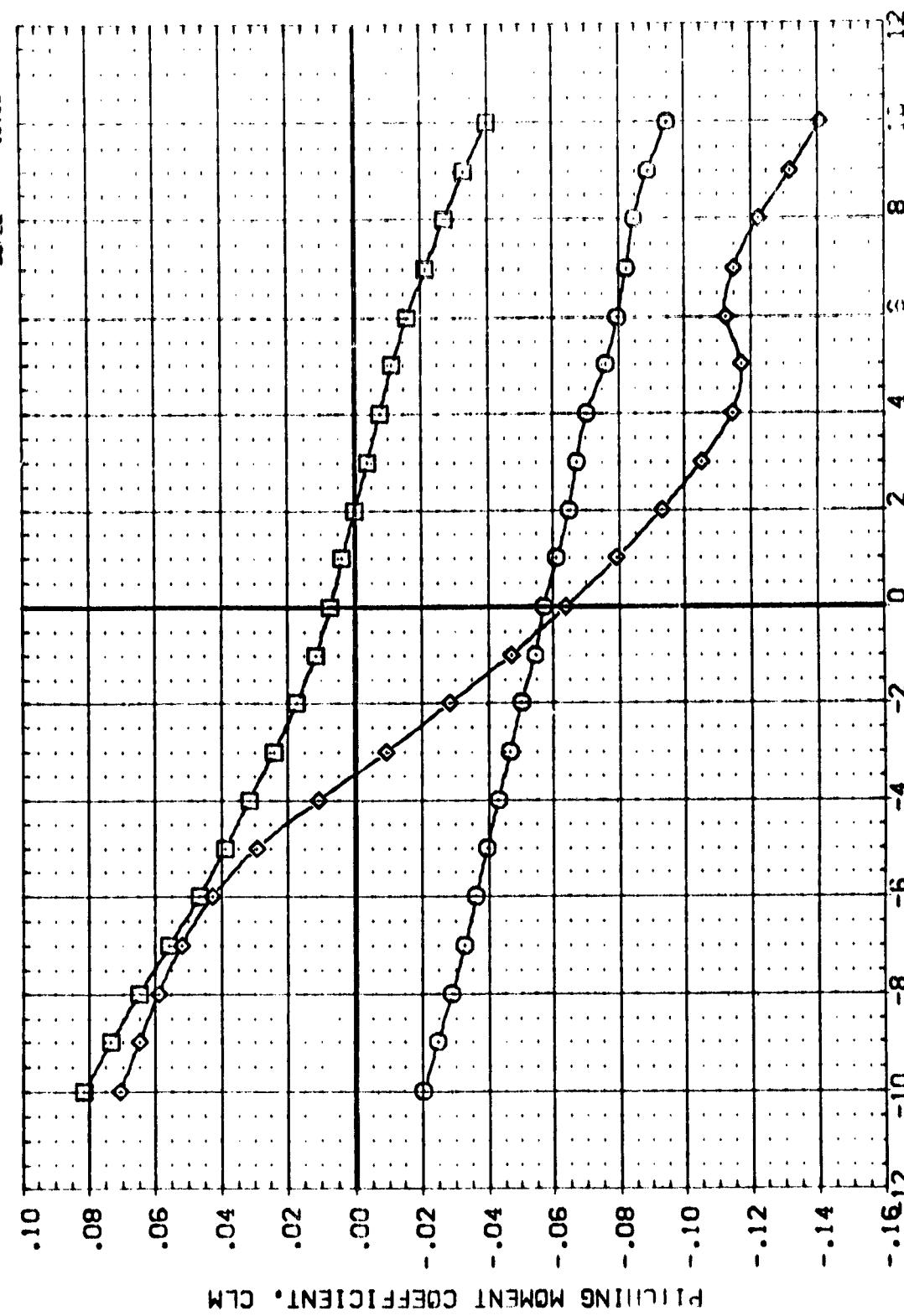


EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76, PT-JET=750)

(A)MACH = 4.50

DATA SET SOURCE CONFIGURATION DESCRIPTION  
 [RTD01] AEDC VA-422(IA-57); ORB/ET VARIANT SRB  
 [RTD09] AEDC VA-422(IA-57); ORB/ET VARIANT SRB  
 [RTD27] AEDC VA-422(IA-57); ORB/ET VARIANT SRB

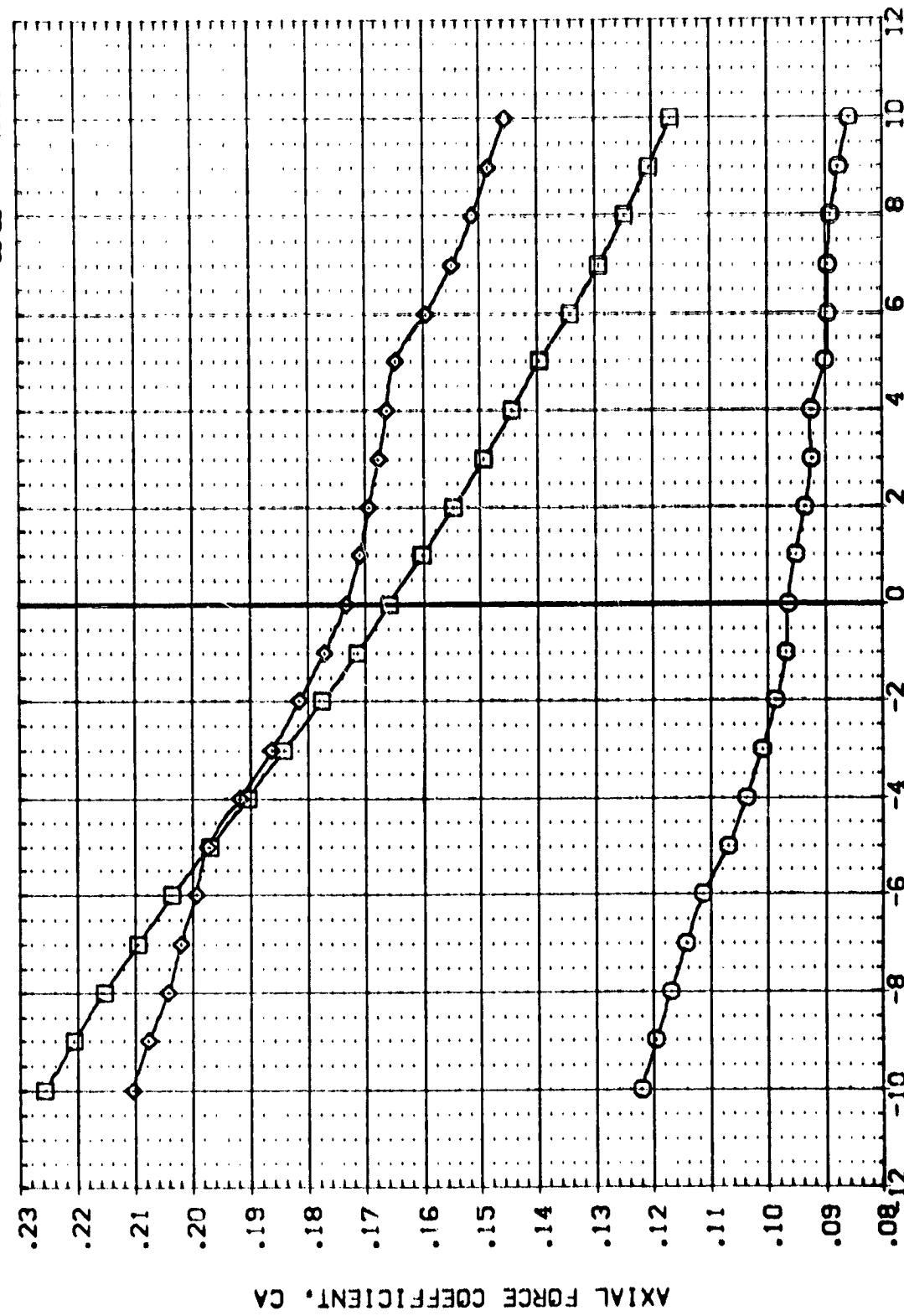
REF. JET INFORMATION  
 SRPOS RVEL FT-JET BETA  
 .100 1.710 750.000 .000  
 .200 1.760 750.000 .000  
 .300 1.761 750.000 .000  
 XREF 230.000 50.000  
 YREF 130.000 50.000  
 ZREF 152.000 44.000  
 SCALE



EFFECT OF ONLY ONE SRB SEPARATION ON O/ET CHARACT. (RM/L=1.76, JT-JET=750)  
 (A) MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLO11) C AEDC VA-422 [A-57] OBS/ET WRIGHT SRB  
 (RTLO19) S AEDC VA-422 [A-57] CRP/ET WRIGHT SRB  
 (RTLO27) B AEDC VA-422 [A-57] CRP/ET WRIGHT SRB

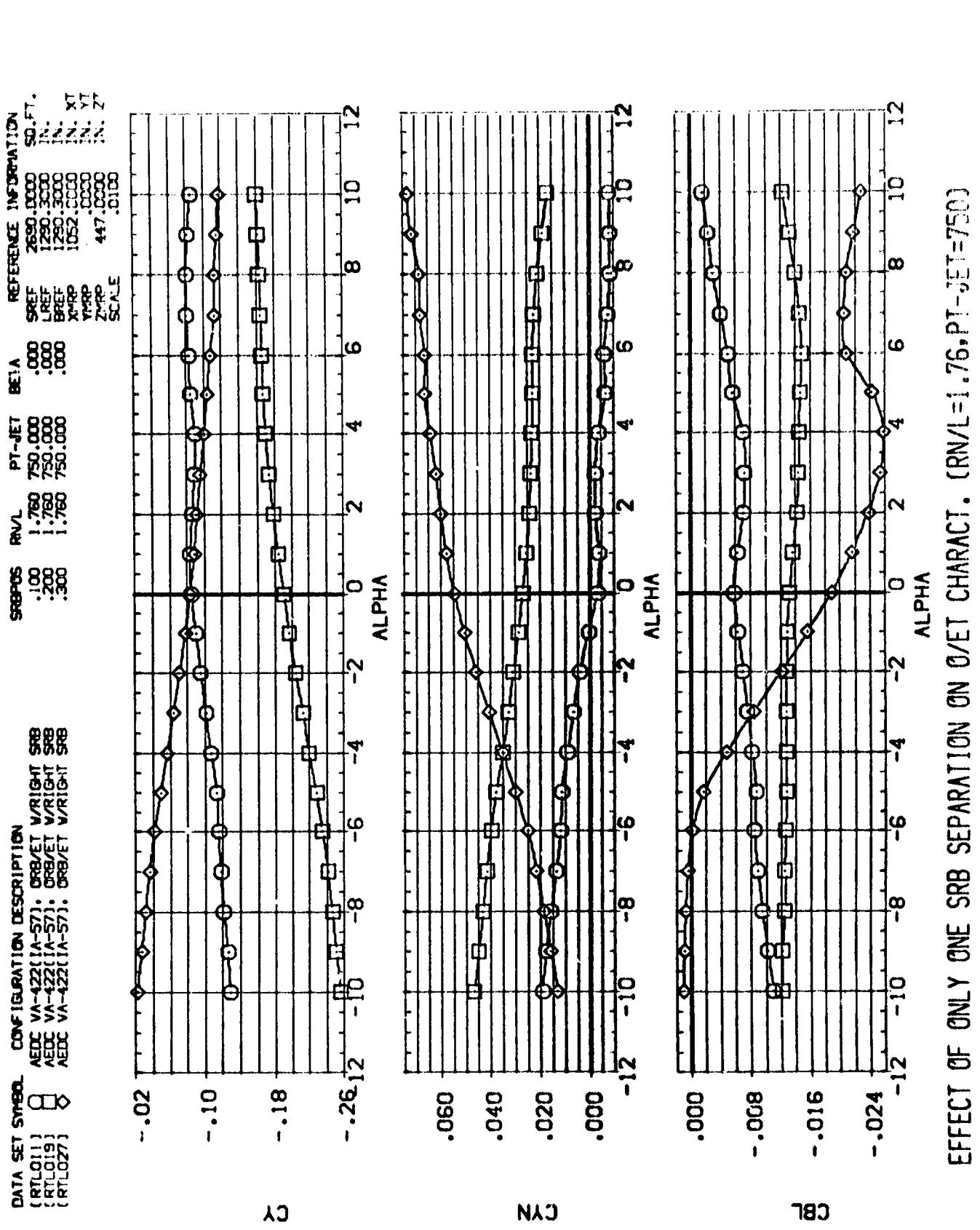


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REPRODUCTION OF THE  
ORIGINAL PAGE IS POOR

EFFECT OF ONLY ONE SRB SEPARATION ON O/ET CHARACT. (RN/L=1.76, PI-JET=750)

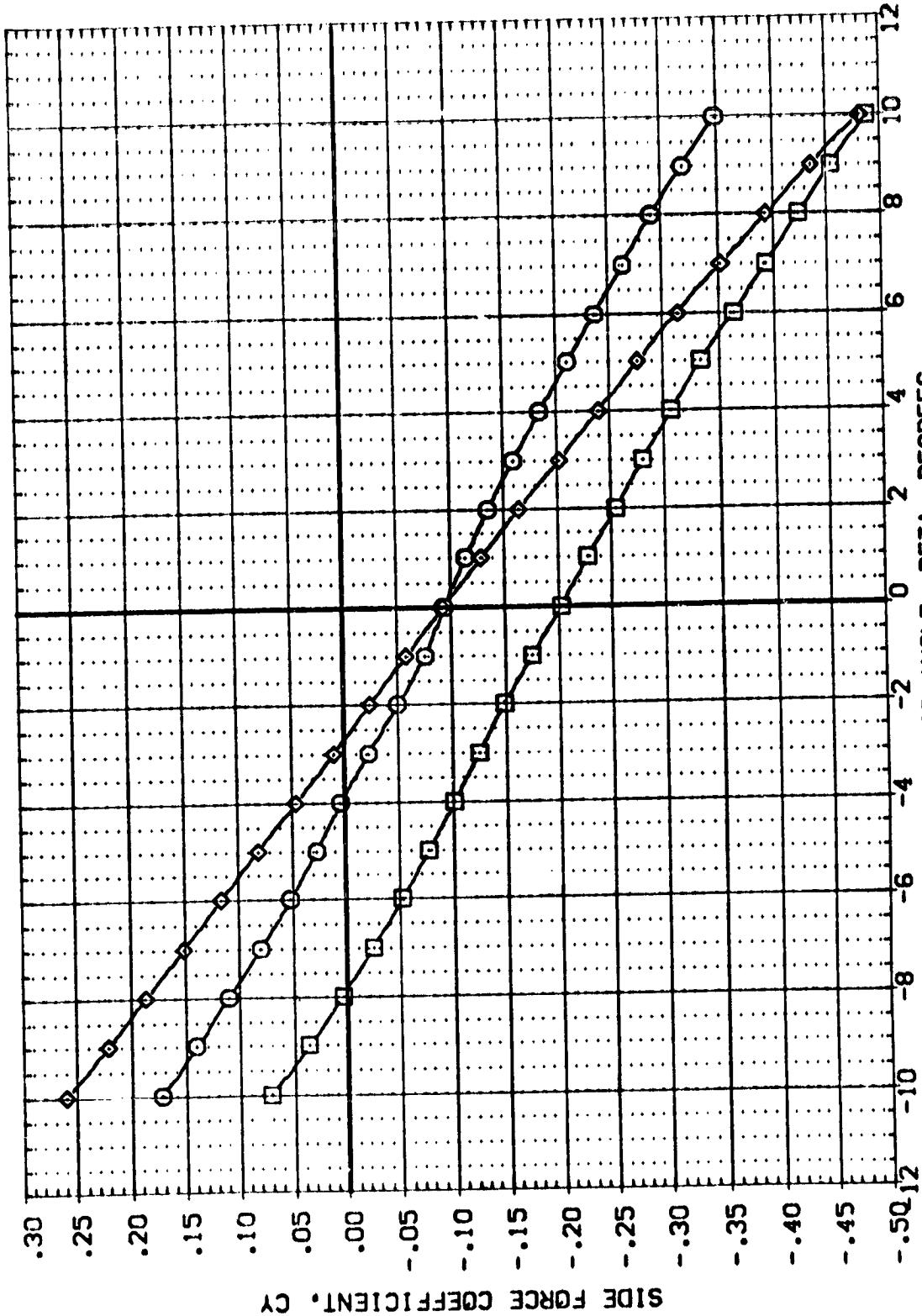
(A)MACH = 4.50



EFFECT OF ONLY ONE SRB SEPARATION ON CBL CHARACT. (RN/L=1.76, PI-JET=750)  
 $(\Delta)MACH = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRTL012 AEDC VA-422(LA-57). ORBIT V/RIGHT SRB  
 CRTL020 AEDC VA-422(LA-57). ORBIT V/RIGHT SRB  
 CRTL028 AEDC VA-422(LA-57). ORBIT V/RIGHT SRB

SRBPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 .100 1.760 750.000 .300 SREF 2650 0000 SQ.FT.  
 .200 1.760 750.000 .300 LREF 1250 2000  
 .300 1.760 750.000 .300 SREF 1250 3000  
 X\*P 152 2000  
 Y\*P 152 2000  
 Z\*P 447 2000  
 SCALE .012



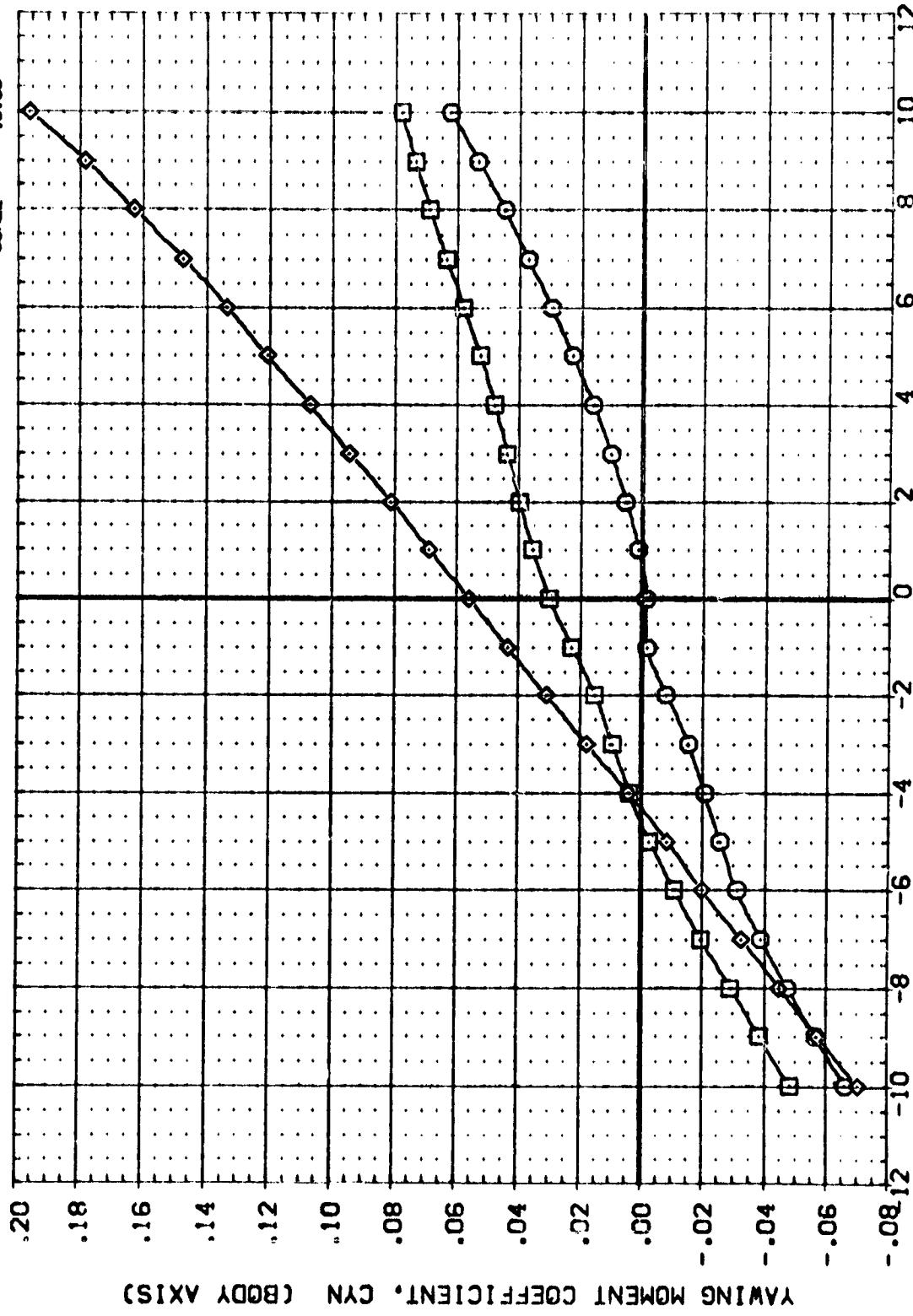
EFFECT OF ONLY ONE SRB SEPARATION ON O/ET CHRACT. (RN/L=1.76, PT-JET=750)

(AJMACH = 4.50)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL012)	AEDC VA-422(IA-57)	ORB/ET V/RIGHT SRB
(RTL020)	AEDC VA-422(IA-57)	ORB/ET V/RIGHT SRB
(RTL028)	AEDC VA-422(IA-57)	ORB/ET V/RIGHT SRB

REFERENCE INFORMATION  
 SPEEDS RNL PT-JET ALPHA SREF .000 SC. FT.  
 .100 1.760 750.000 .000 LREF 1250.300 1.11  
 .200 1.760 750.000 .000 BREF 1250.300 1.11  
 .300 1.760 750.000 .000 XMSP 1052.060 1.11 XT  
 YMSP 447.000 1.11 YT  
 ZMSP .000 1.11 ZT  
 SCALE .0100



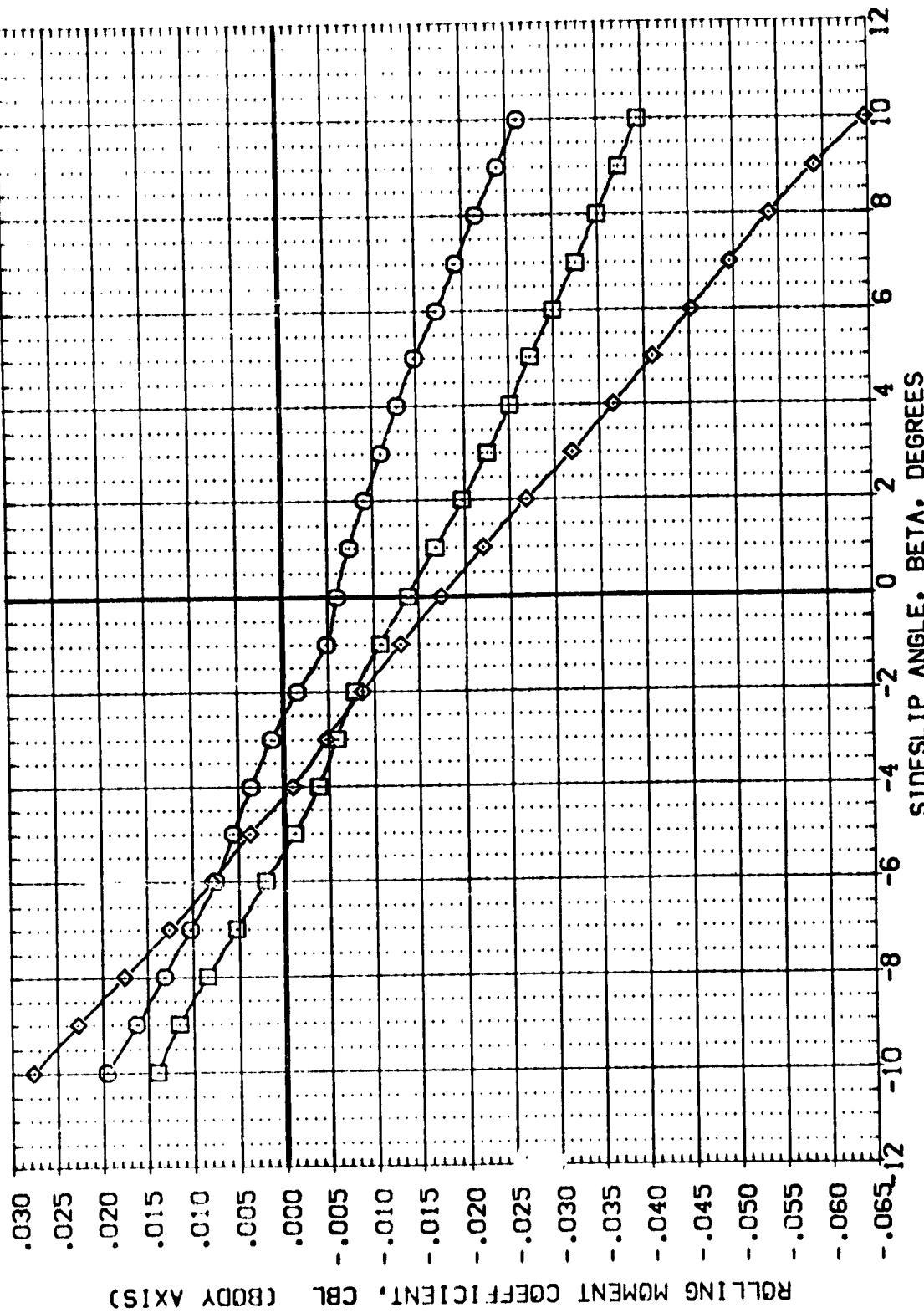
EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76, PT-JET=750)

(A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRNL012 AEDC VA-422(I-A-57) CRB/ET VRIGHT SRB  
 CRNL020 AEDC VA-422(I-A-57) CRB/ET VRIGHT SRB  
 CRNL028 AEDC VA-422(I-A-57) CRB/ET VRIGHT SRB

SRBPOS	RNL	PT-JET	ALPHA	REFERENCE INFORMATION
.100	1.760	750.000	.000	SREF 2680.0000 SQ.FT.
.200	1.760	750.000	.000	LREF 1280.3000
.300	1.760	750.000	.000	BREF 300.3000
				XRP .352 .5000
				YRP .388 .5000
				ZRP .417 .5000
				SCALE .500



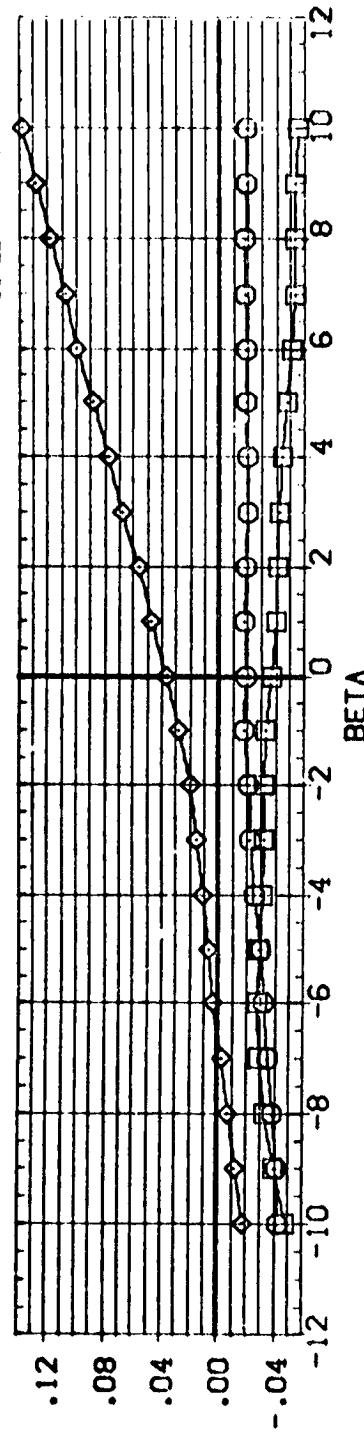
EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RNL=1.76, PT-JET=750)

(A)MACH = 4.50

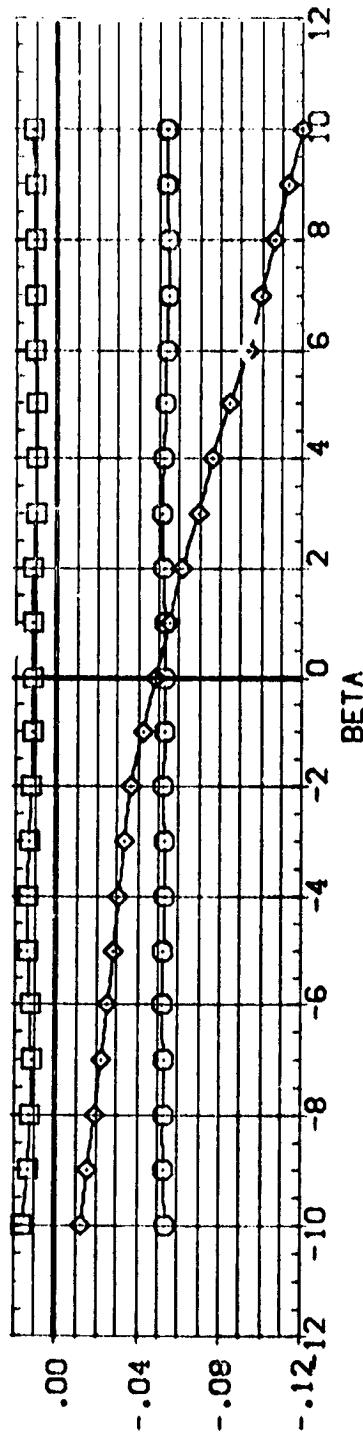
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL012) AEDC VA-422 [A-57] ORB/ET VRIGHT SRB  
 (RTL020) AEDC VA-422 [A-57] ORB/ET VRIGHT SRB  
 (RTL028) AEDC VA-422 [A-57] ORB/ET VRIGHT SRB

SRPOS RNL PT-JET ALPHA REFERENCE INFORMATION

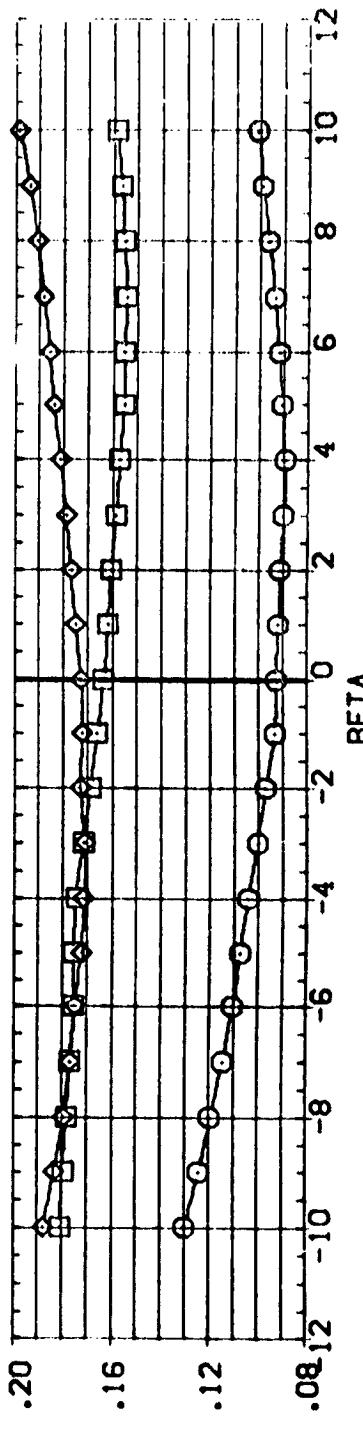
.100	1.760	750.000	SREF	260.000	SO. ST.
.200	1.760	750.000	LREF	120.320	X
.300	1.760	750.000	SREF	120.320	Z
			XRP	152.000	Y
			YRP	447.000	
			ZRP	447.000	
			SCALE	.010	



CLM

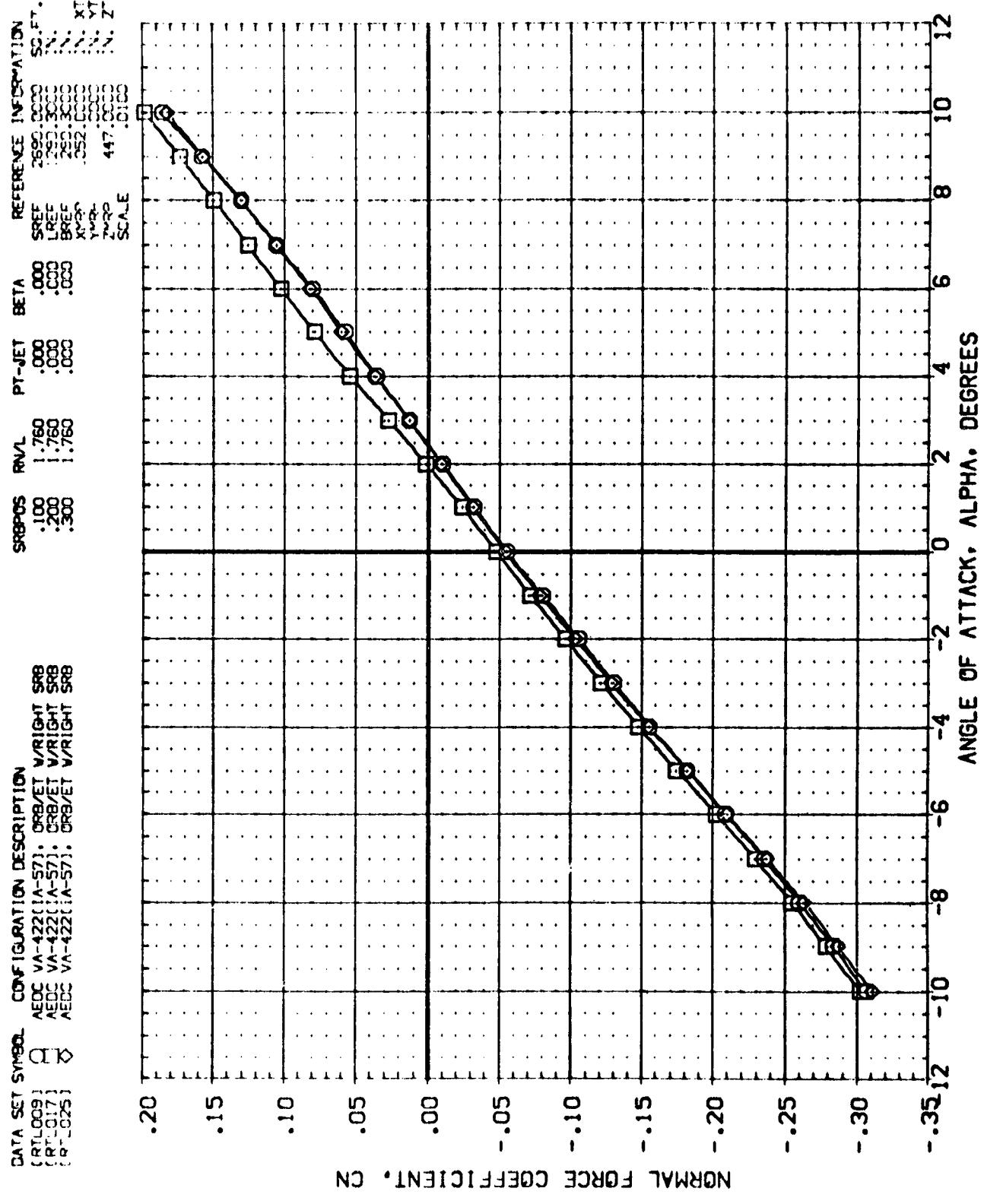


CD



CLM

EFFECT OF ONLY ONE SRB SEPARATION ON 0/ET CHARACT. (RN/L=1.76, PT-JET=750)  
 $(\lambda)_{MACH} = 4.50$  DATE 92



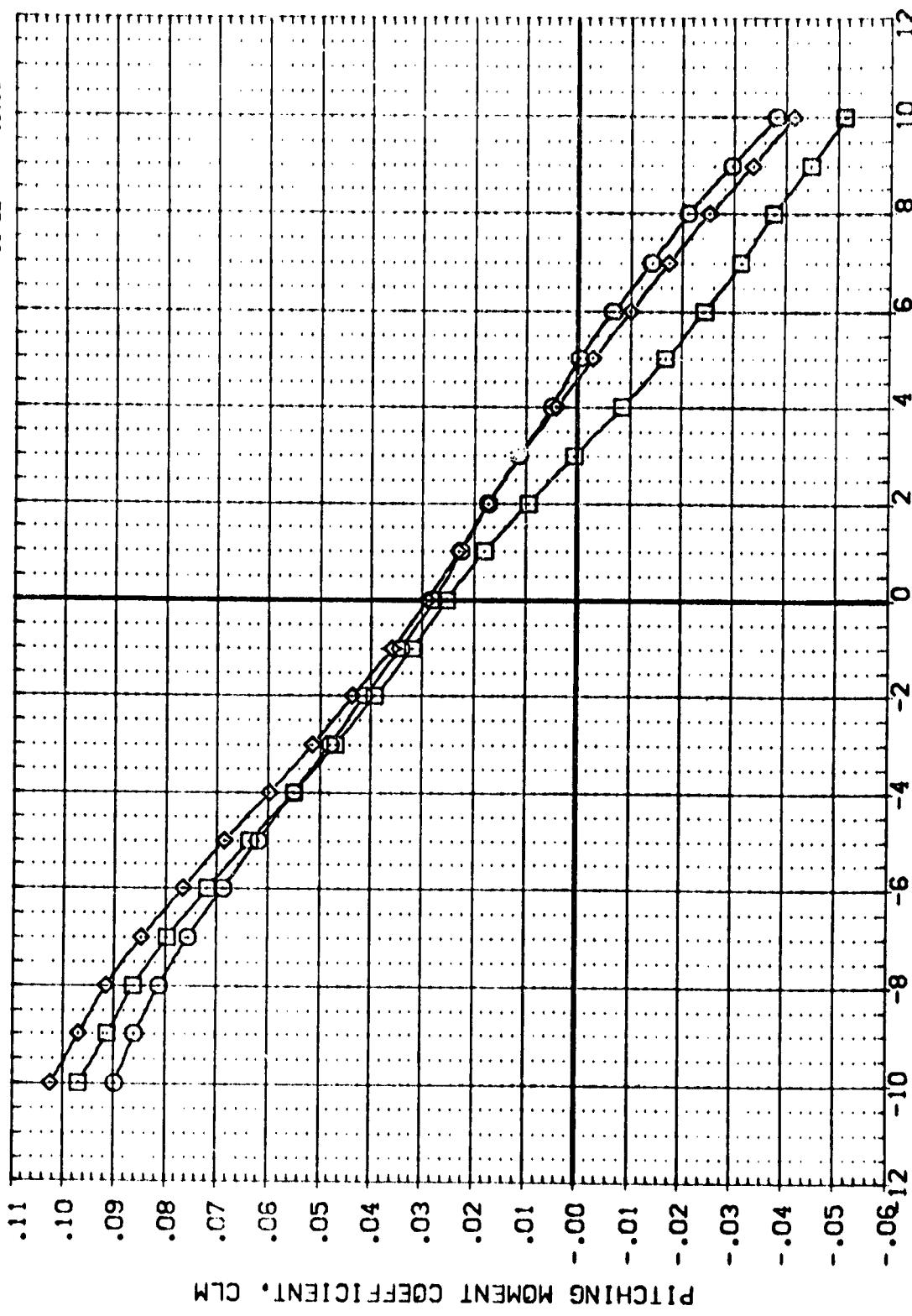
EFFECT OF ONLY ONE SRB SEPARATION WITH NO PLUMES ON 0/ET CHARACT. (RN/L=1.76)  
 $(\alpha)_{MACH} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[CRTLOG]	AEDC VA-422([A-57])	GRB/ET	VRIGHT SRB
[CRTLOG1]	AEDC VA-422([A-57])	GRB/ET	VRIGHT SRB
[CRTLOG2]	AEDC VA-422([A-57])	GRB/ET	VRIGHT SRB
[CRTLOG3]	AEDC VA-422([A-57])	GRB/ET	VRIGHT SRB

REFERENCE INFORMATION

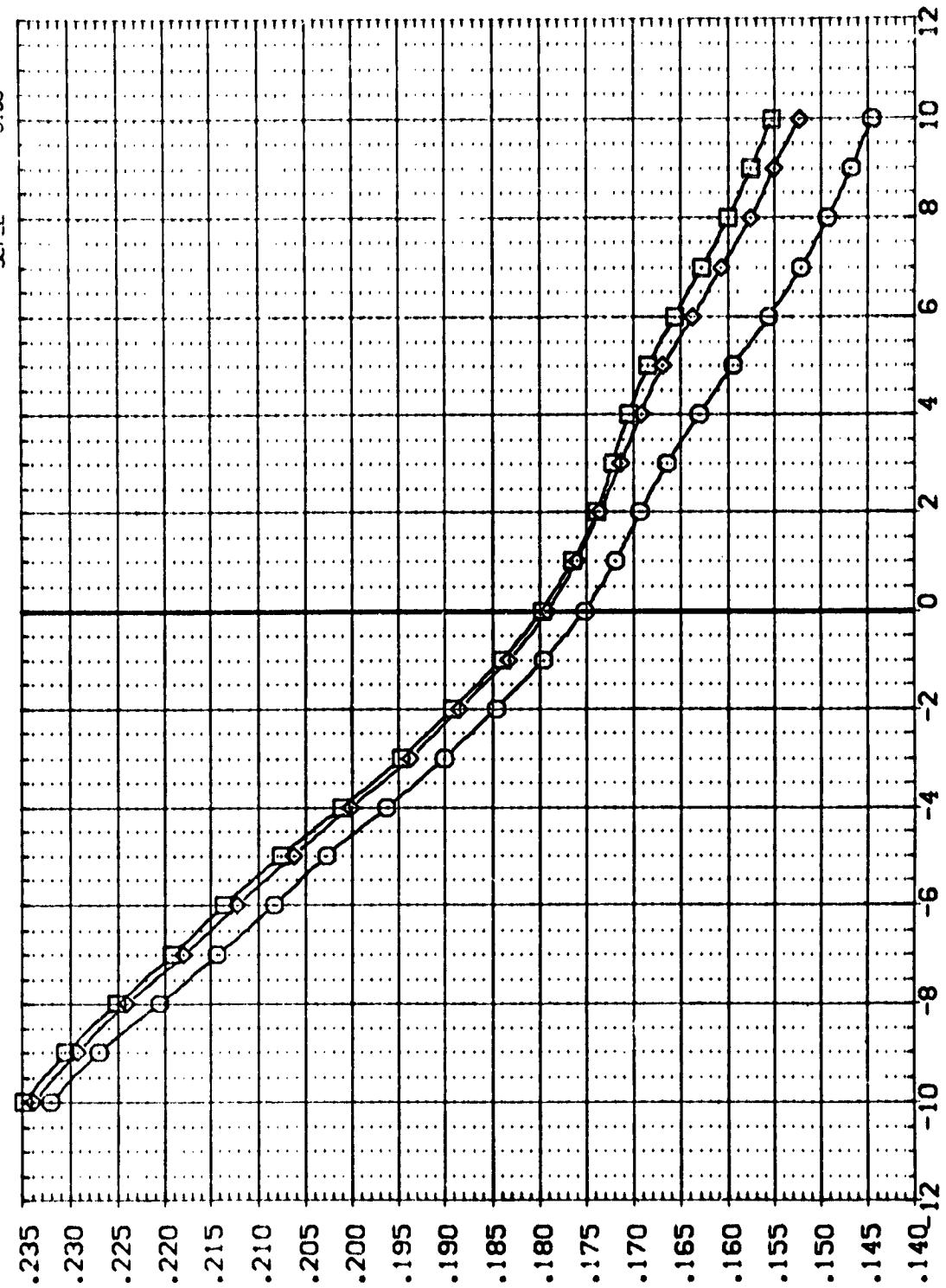
RNL	PT-JET	BETA	REFERENCE
.100	.000	.000	SREF 2650.0000 SQ.FT.
.200	.000	.000	LREF 1250.3000 IN. X
.300	.000	.000	XRP 1250.3000 IN. Y
			ZRP 152.0000 IN. Z
			SCALE .333



EFFECT OF ONLY ONE SRB SEPARATION WITH NO PLUMES ON 0/ET CHRACT. (RN/L=1.76)  
 $(\Delta) MACH = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RT\_09) AEDC VA-422([A-57]) ORB/ET V/RIGHT SRB  
 (RT\_07) AEDC VA-422([A-57]) ORB/ET V/RIGHT SRB  
 (RT\_25) AEDC VA-422([A-57]) 3RB/ET V/RIGHT SRB

	SRBPOS	RNL	PT-JET	BETA	REFERENCE INFORMATION
	.100	1.750	.000	.000	SREF 2680.0000 SC-FT.
	.200	1.760	.002	.000	LREF 1250.3000 IN.
	.300	1.760	.000	.000	BREF 1280.3000 IN.
					XRD 1052.0000 IN.
					YRD 1000.0000 IN.
					ZRD 447.0000 IN.
					SCALE 3.0

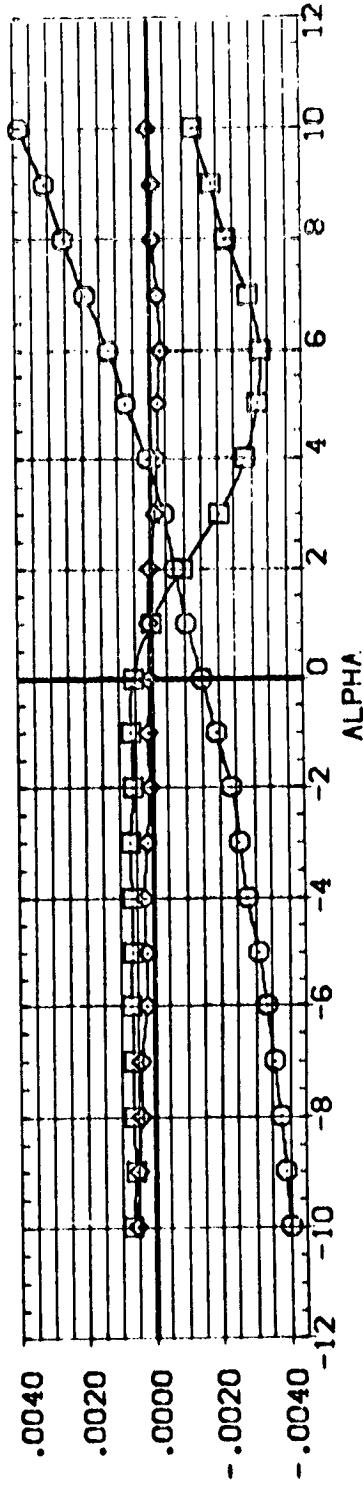
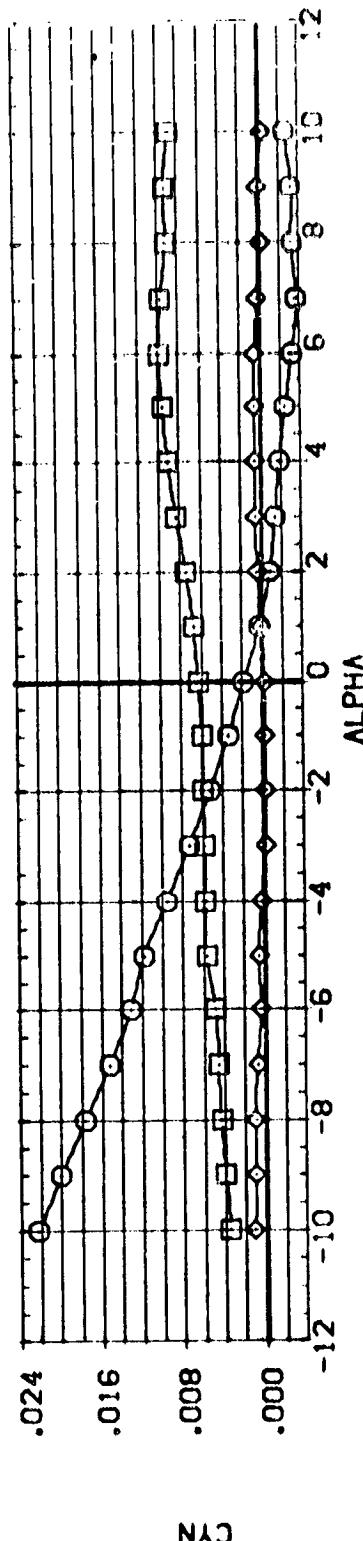
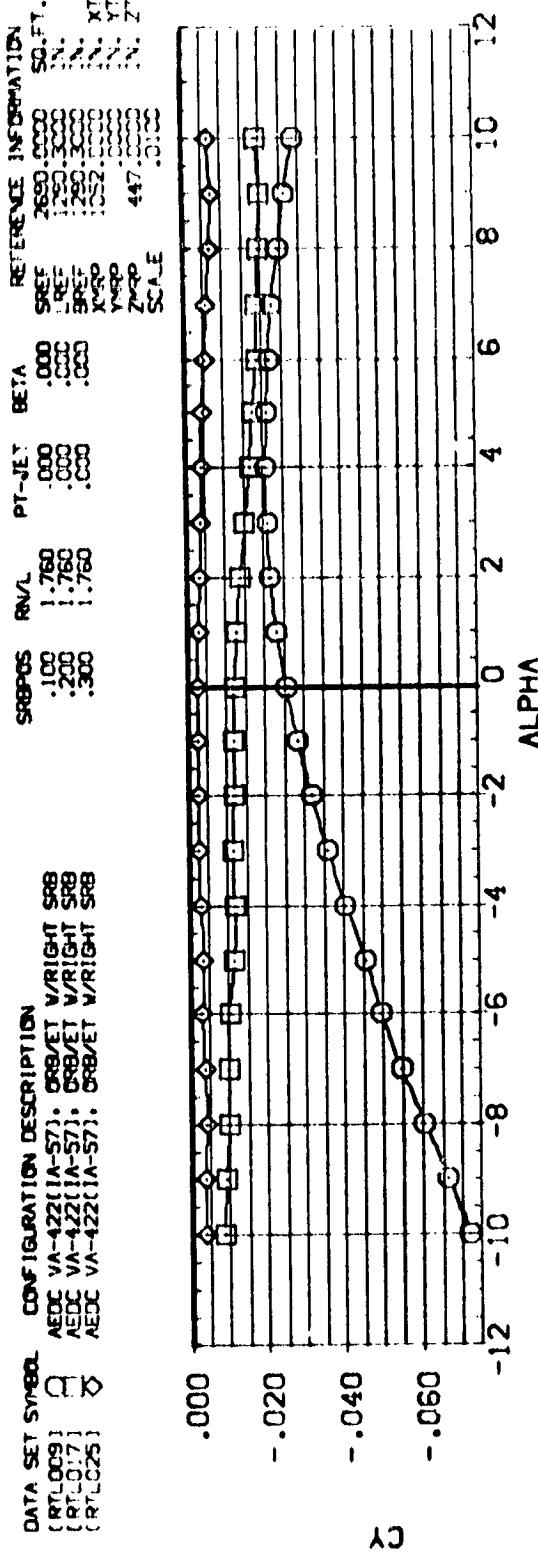


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EFFECT OF ONLY ONE SRB SEPARATION WITH NO PLUMES ON 0/ET CHART. (RN/L=1.76)

C<sub>A</sub>MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL009) A AEDC VA-422(IA-57); GRB/ET WRIGHT SRB  
 (RTL017) D AEDC VA-422(IA-57); GRB/ET WRIGHT SRB  
 (RTL025) O AEDC VA-422(IA-57); GRB/ET WRIGHT SRB

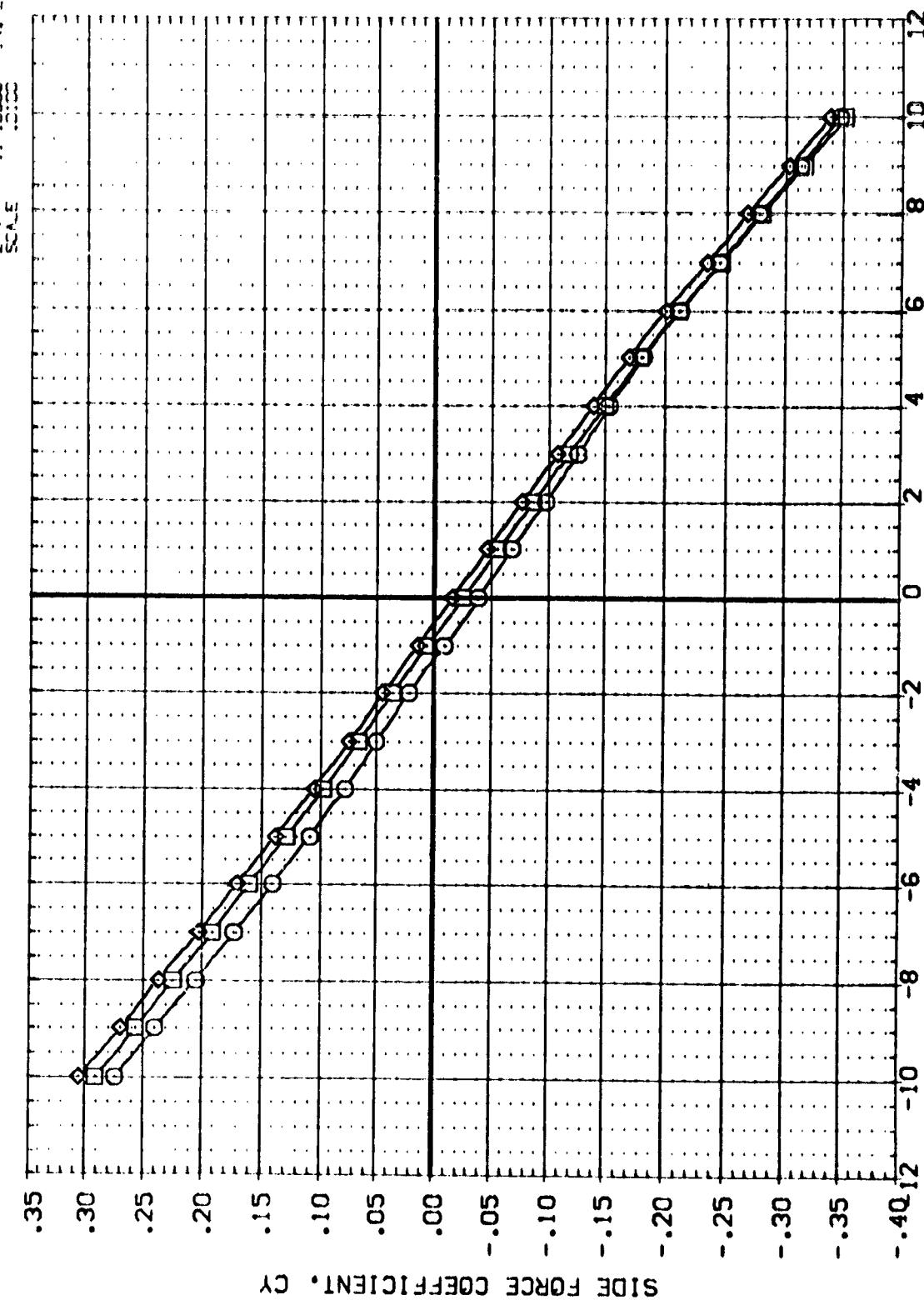


EFFECT OF ONLY ONE SRB SEPARATION WITH NO PLUMES ON 0/ET CHRACT. (M/V=1.76)  
 (A) MACH = 4.50  
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DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RT_C10)	AEDC VA-422 (A-57)	ORB/JET WRIGHT SRB
(RT_D18)	AEDC VA-422 (A-57)	CRB/JET WRIGHT SRB
(RT_C26)	AEDC VA-422 (A-57)	CRB/JET WRIGHT SRB

REFERENCE INFORMATION  
 SRB: 2520, 2000, 50 FT.  
 REF: 2520, 3000, 50 FT.  
 SRB: 2520, 3000, 50 FT.  
 WTB: 2520, 3000, 50 FT.  
 TWT: 2520, 3000, 50 FT.  
 SCALE: 45°



EFFECT OF ONLY ONE SRB SEPARATION WITH NO PLUMES ON 0/ET CHARECT. (RN/L=1.76)

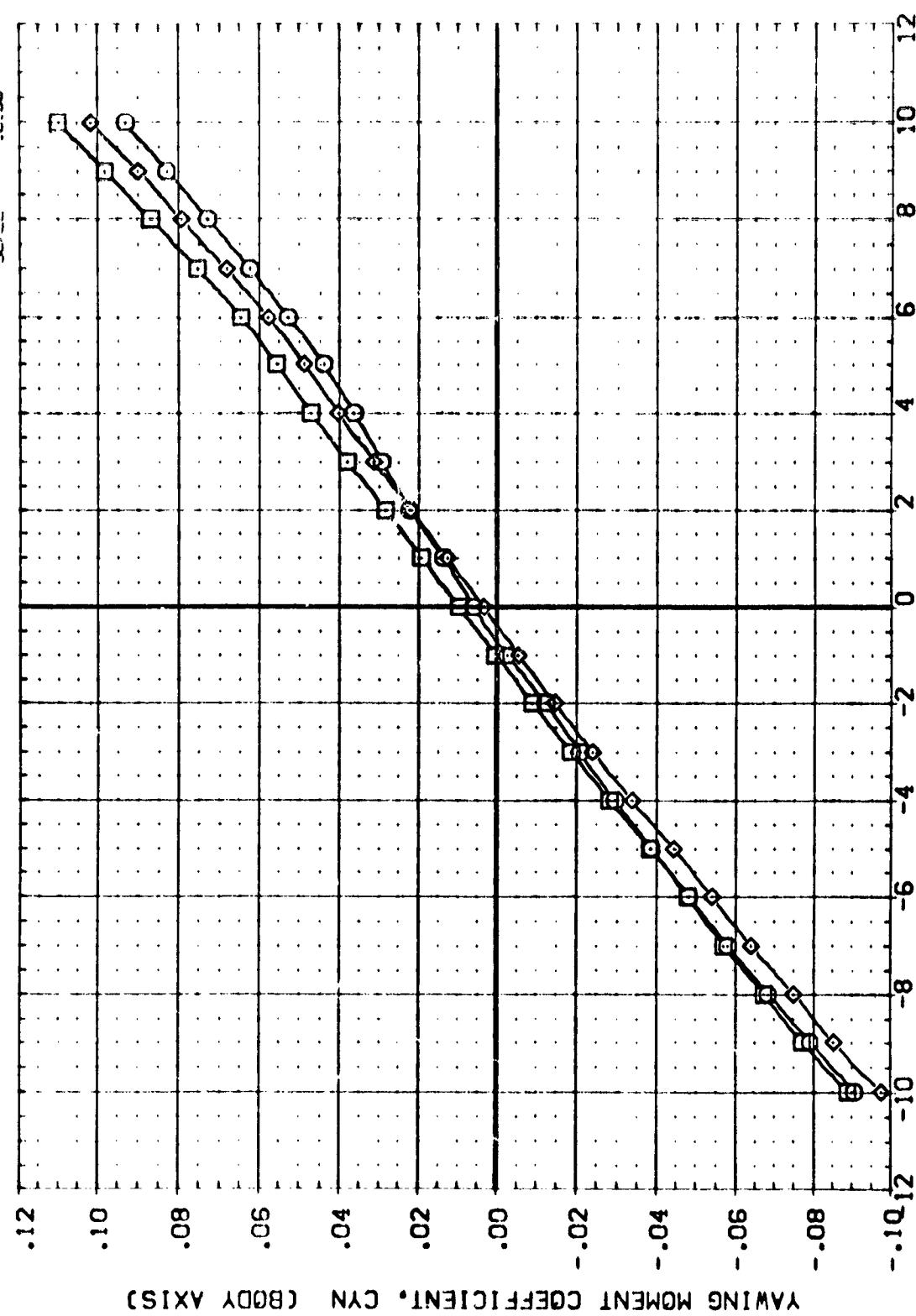
(A) $MACH = 4.50$

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## DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RTLO10] AEDC VA-422 [A-57]. ORB/ET V/WIGHT SRB  
 [RTLO18] AEDC VA-422 [A-57]. ORB/ET V/WIGHT SRB  
 [RTLO26] AEDC VA-422 [A-57]. ORB/ET V/WIGHT SRB

DATA SET SYMBOL	RN/L	PT-JET	ALPHA	REFERENCE INCLINATION
[RTLO10]	.100	.750	.000	2500.300 S. ST.
[RTLO18]	.200	.750	.000	1250.300 L. ST.
[RTLO26]	.300	.750	.000	1250.300 R. ST.



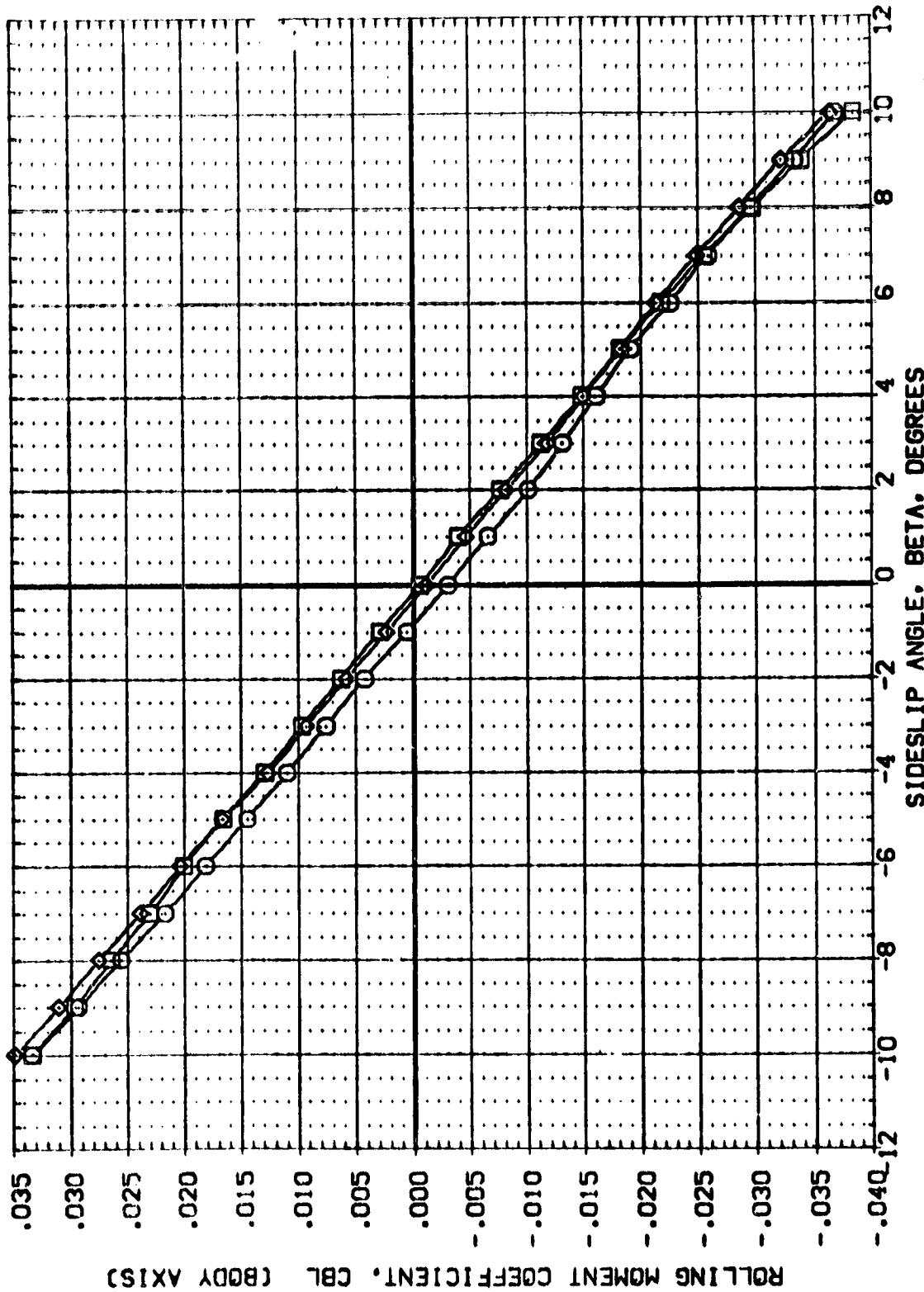
EFFECT OF ONLY ONE SRB SEPARATION WITH NO PLUMES ON G/ET CHRACT. (RN/L=1.76)

C/MACH = 4.50  
 PAGE 98

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(STL010)	AEDC VA-422(I A-57)	GRB/EI VRIGHT SRB
(STL018)	AEDC VA-422(I A-57)	GRB/EI VRIGHT SRB
(RTL026)	AEDC VA-422(I A-57)	GRB/EI VRIGHT SRB

SRBPOS RVNL PT-JET ALPHAI REFERENCE INFORMATION  
 :100 .750 .000 SRF 2600.000 SQ.FT.  
 :200 .750 .000 LRF 1250.300 SQ.FT.  
 :300 .750 .000 RRF 1250.300 SQ.FT.  
 :400 .750 .000 JETP 1250.300 SQ.FT.  
 :500 .750 .000 YPP 1250.300 SQ.FT.  
 :600 .750 .000 ZP 1250.300 SQ.FT.



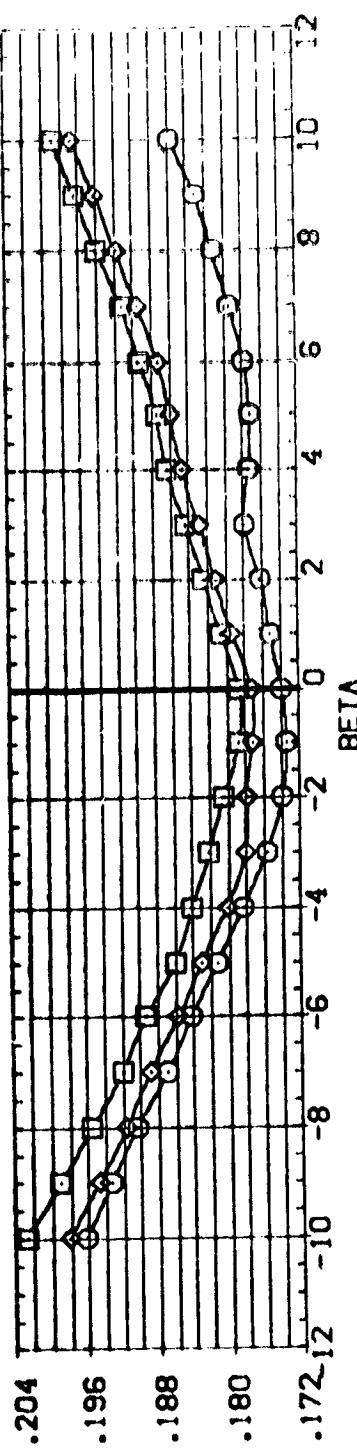
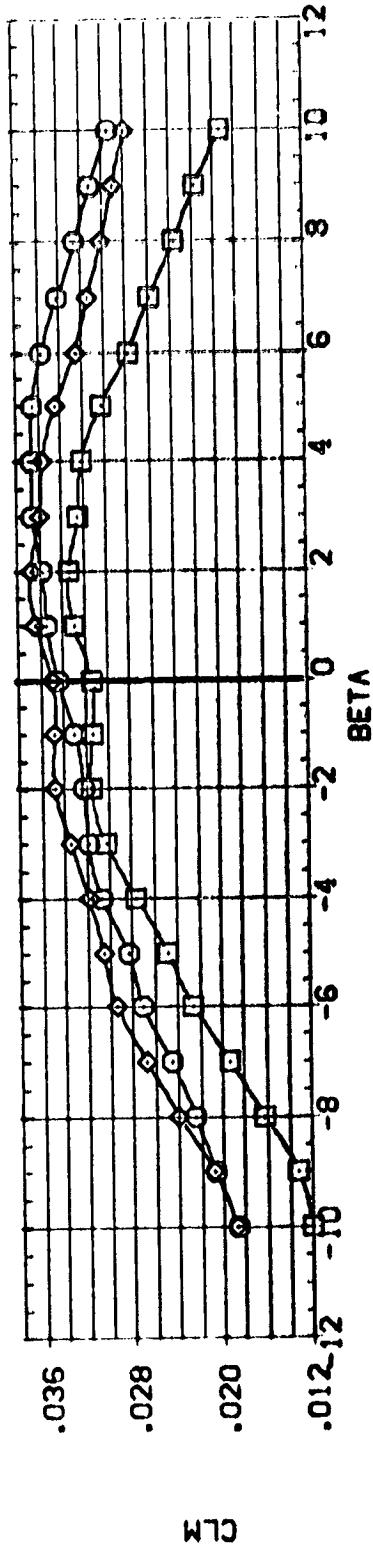
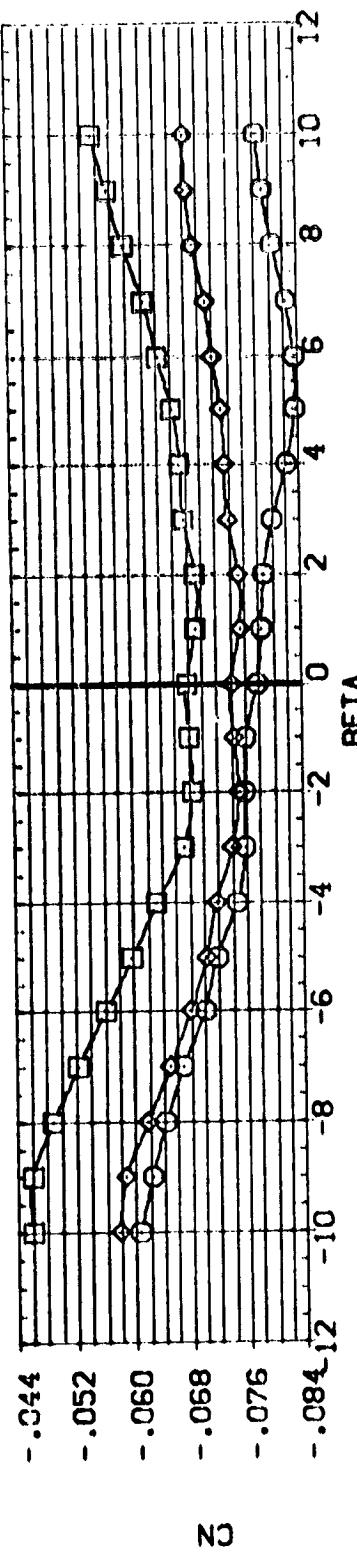
EFFECT OF ONLY ONE SRB SEPARATION WITH NO PLUMES ON C/L ET CHART. (RM/L = 1.76)

MACH = 4.50

PAGE 99

DATA SET SPEED CONFIGURATION DESCRIPTION  
 (RTLD:0) AEDC VA-422 [A-57]. 083/ET V/RIGHT SRB  
 (RTLD:8) AEDC VA-422 [A-57]. 083/ET V/RIGHT SRB  
 (RTLD:26) AEDC VA-422 [A-57]. 083/ET V/RIGHT SRB

SRPOS SR/L PT-JET ALPHA REFERENCE INFORMATION  
 .103 .750 .000 SR/F 2690 0.00 50. FT.  
 .200 .750 .000 SR/F 1280 3000 50.  
 .300 .750 .000 SR/F 1250 3000 50.  
 .400 .750 .000 SR/F 1050 3000 50.  
 ZPP 447 3000 50.  
 SCALE

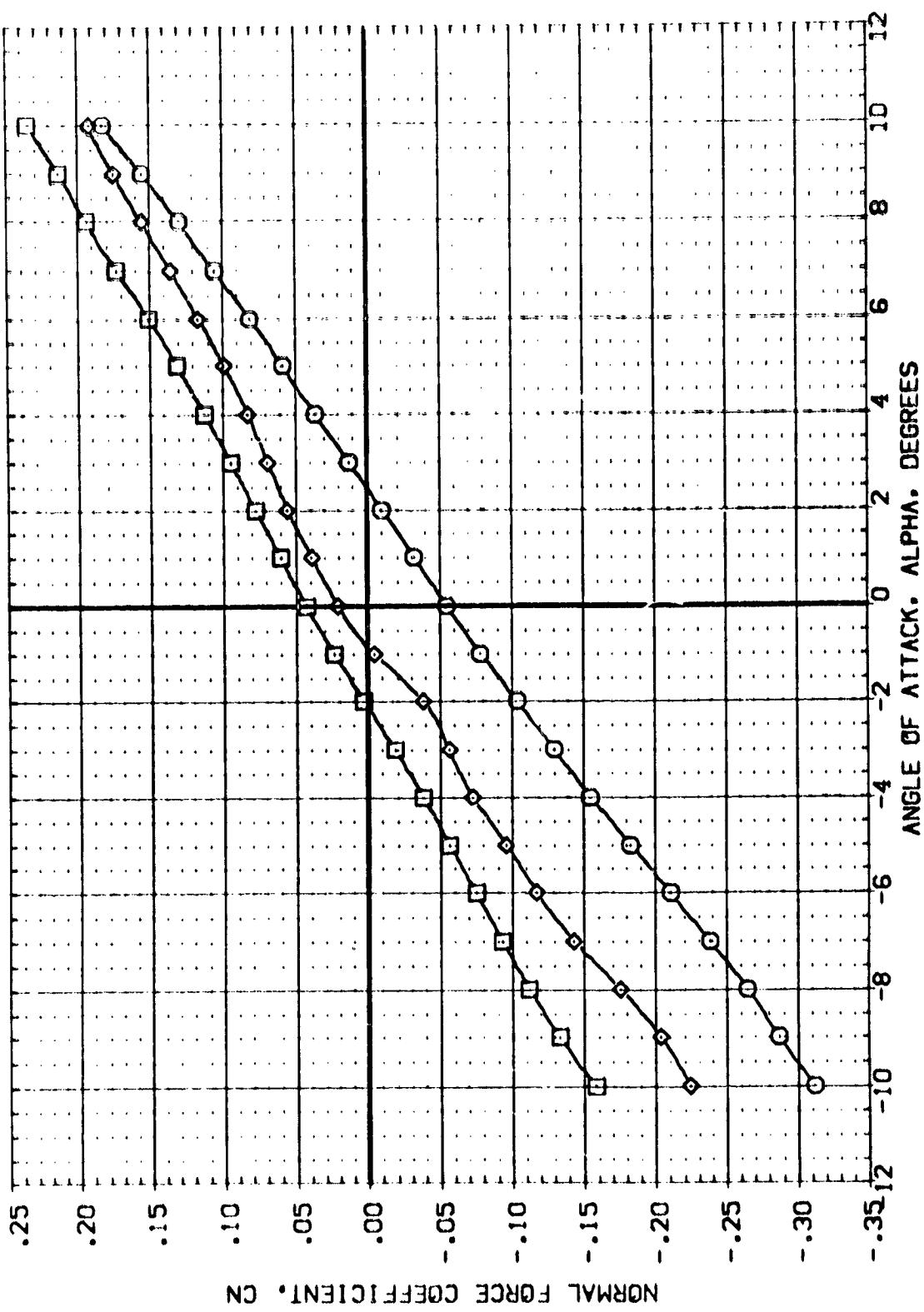


EFFECT OF ONLY ONE SRB SEPARATION WITH NO PLUMES ON 0/ET CHARACT. CRN/L=1.76  
 $(\Delta) MACH = 4.50$

PAGE :00

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 PT-001 AEDC VA-422(IA-57). ISOLATED ORBIT ET  
 PT-013 AEDC VA-422(IA-57). CRIBET W/RIGHT SRB  
 PT-038 AEDC VA-422(IA-57). CRIBET W/BOTH SRB

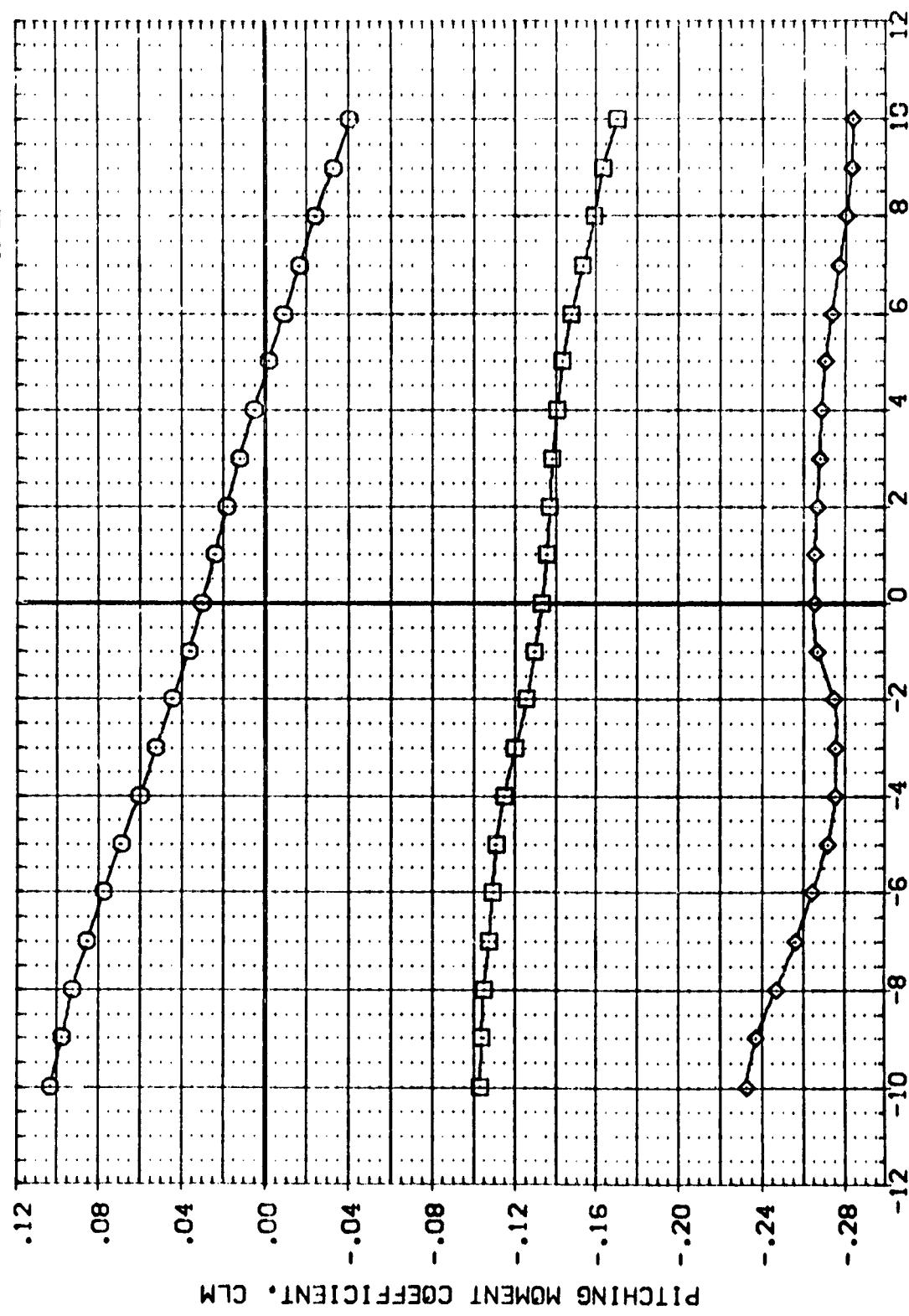
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 PT-001 AEDC VA-422(IA-57). ISOLATED ORBIT ET  
 PT-013 AEDC VA-422(IA-57). CRIBET W/RIGHT SRB  
 PT-038 AEDC VA-422(IA-57). CRIBET W/BOTH SRB



EFFECT OF SRB ON 0/ET CHARACT. (POSITION 1. PT/JET=1500)  
 $C_{AJMACH} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL001) AEDC VA-422(IAT-57), ISOLATED SRB/JET  
 (RTL013) AEDC VA-422(IAT-57), GRB/JET V/RIGHT SRB  
 (RTL038) AEDC VA-422(IAT-57), GRB/JET V/BOTH SRB

REFERENCE INFORMATION  
 SRPOS RNL PT-JET BETA SREF 2650.0000 52.FT.  
 1:100 1.750 1.750 1500.000 .000 LREF 250.300  
 1:100 1.750 1500.000 .000 BREF 250.300  
 X\*20 1552.0000 52.FT.  
 Y\*RP 447.3000 52.FT.  
 SCALE 2.0

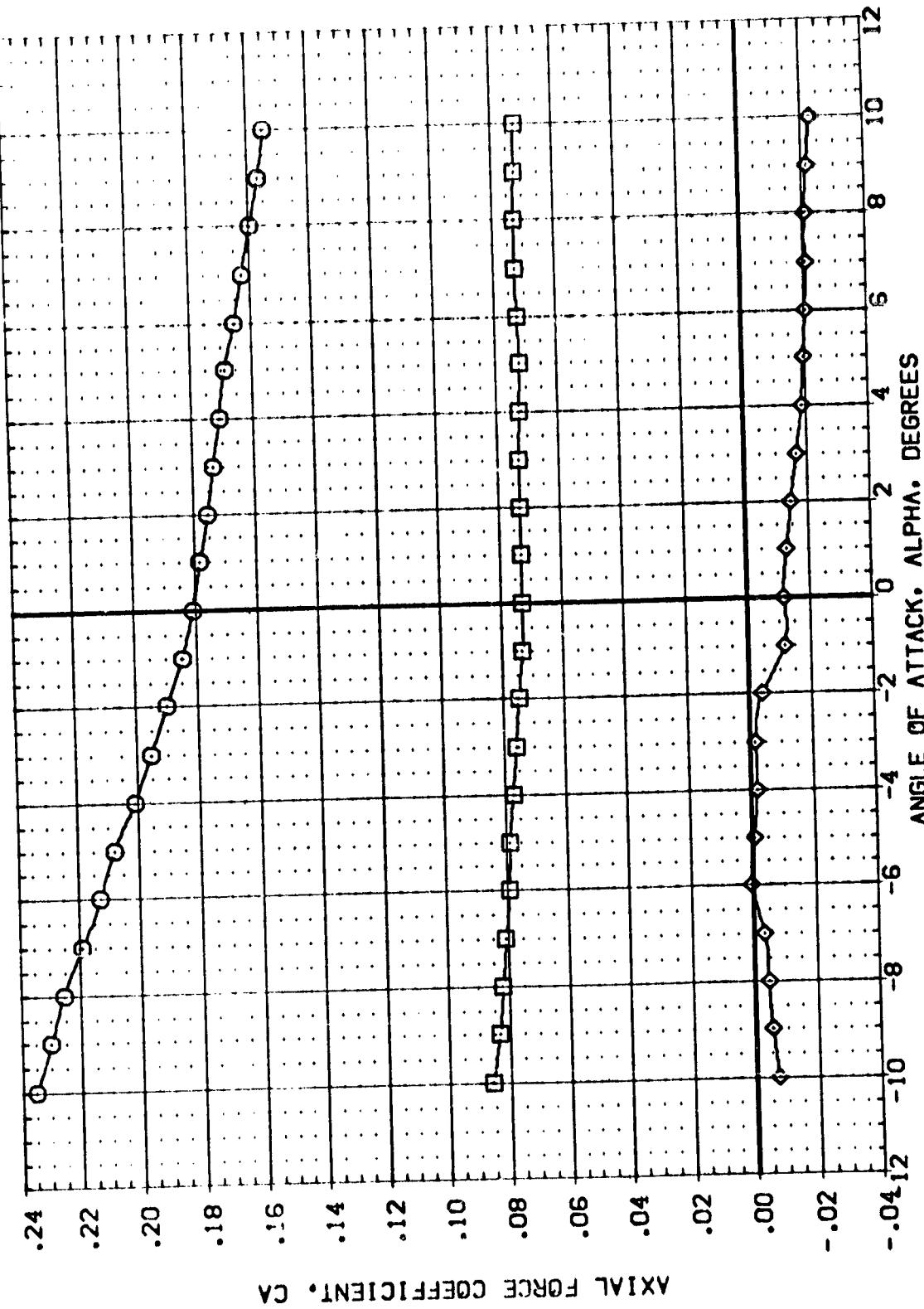


EFFECT OF SRB ON 0/ET CHARACT. (POSITION 1, PT/JET=1500)  
 (A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRTL001 AEDC VA-422 [A-57]. ISOLATED SRB/ET  
 CRTL013 AEDC VA-422 [A-57]. ORBIT V/RIGHT SRB  
 CRTL038 AEDC VA-422 [A-57]. ORBIT V/BOTH SRB

REFERENCE INFORMATION  
 SRBPOS RNL PT-JET BETA  
 1.100 1.760 1500.000 .000  
 1.100 1.760 1500.000 .000  
 SCALE

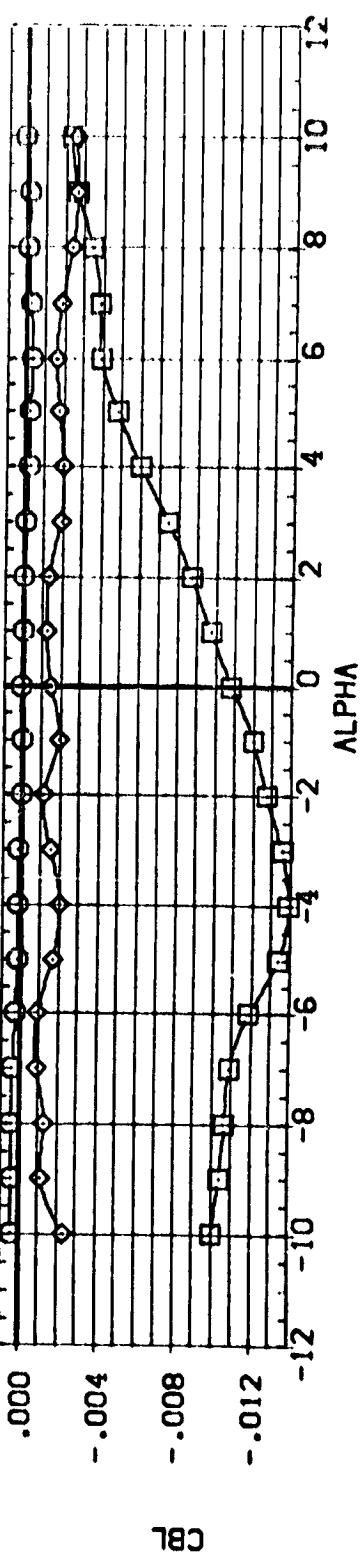
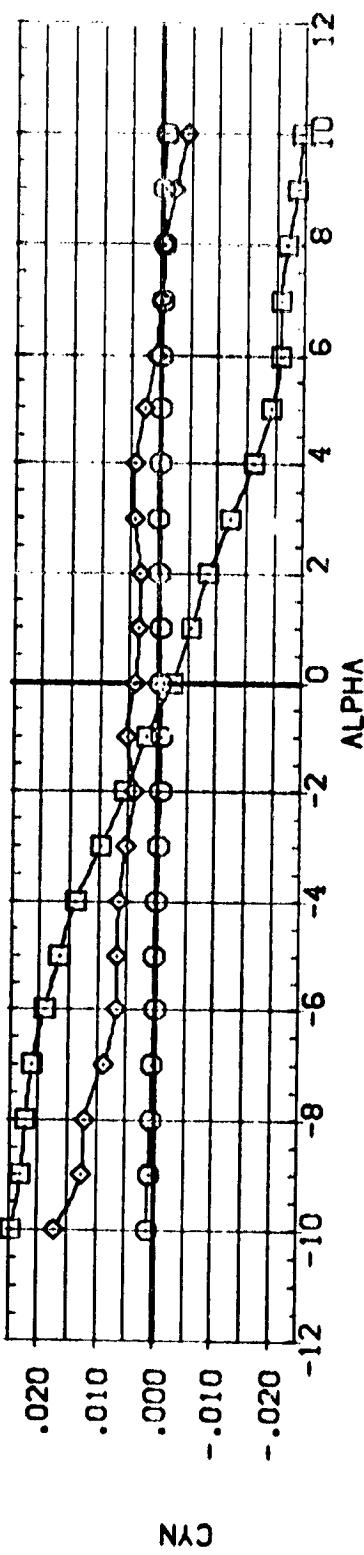
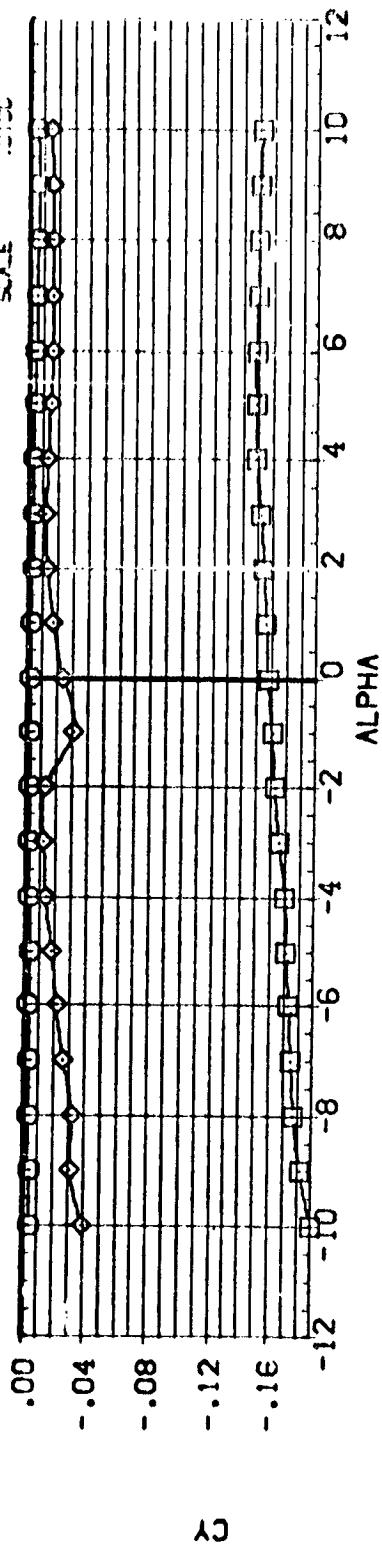
SQ.FT.  
 SREF 2680.0000  
 LREF 1290.3000  
 BREF 1290.3000  
 XREF 152.000000  
 YREF 447.000000  
 ZREF 112.000000



EFFECT OF SRB ON O/ET CHARACT. (POSITION 1, PT/JET=1500)

(A)MACH = 4.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[ATL001]	AEDC VA-4221 [A-571] ISOLATED CRB/E/T
[ATL013]	AEDC VA-4221 [A-571] CRB/E/T V/BRIGHT S/B
[ATL038]	AEDC VA-4221 [A-571] CRB/E/T V/80TH S/B

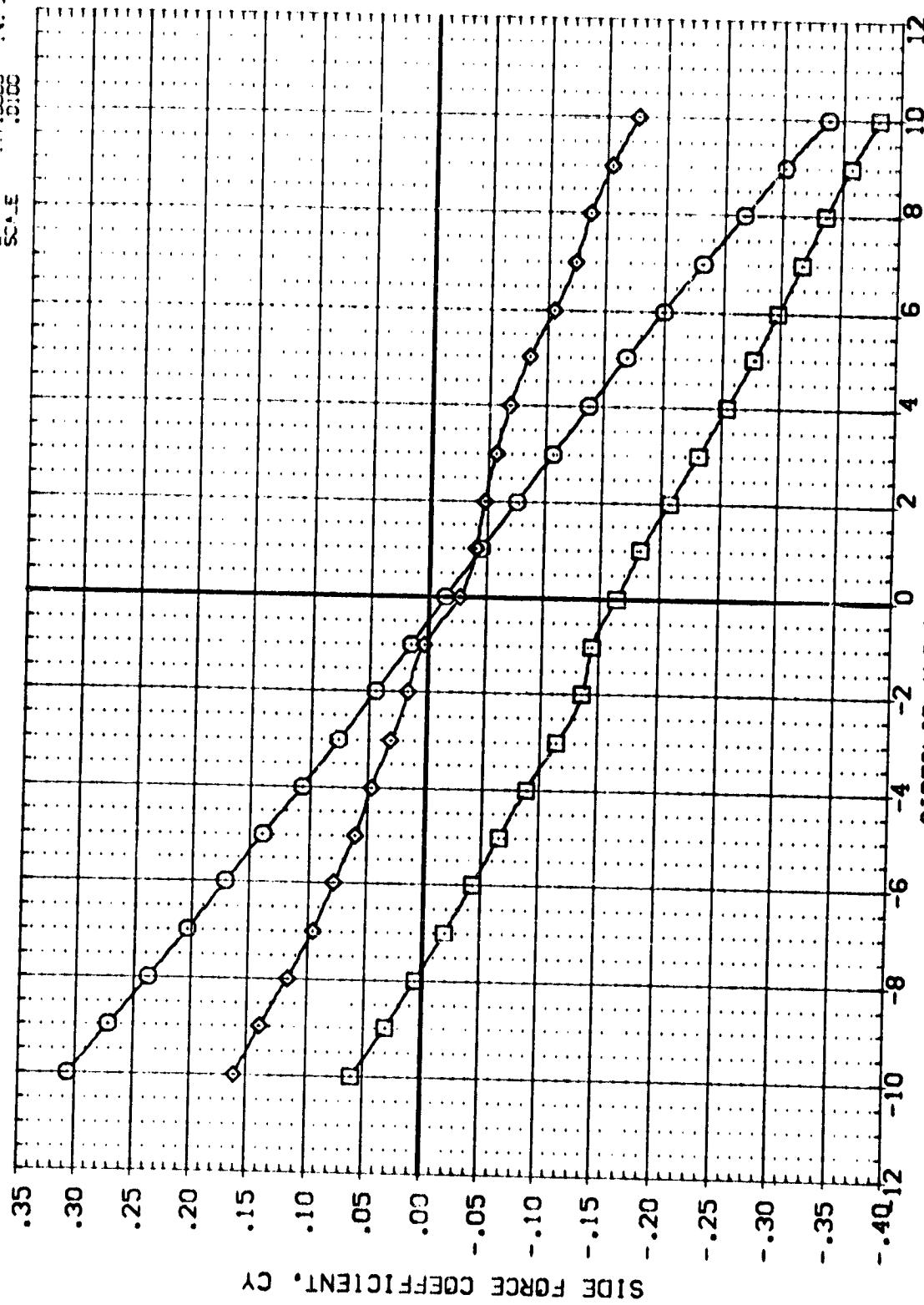


## EFFECT OF SRB ON 0/ET CHARACT. (POSITION 1, PT/JET=1500)

$$(\text{A})_{\text{MACH}} = 4.50$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

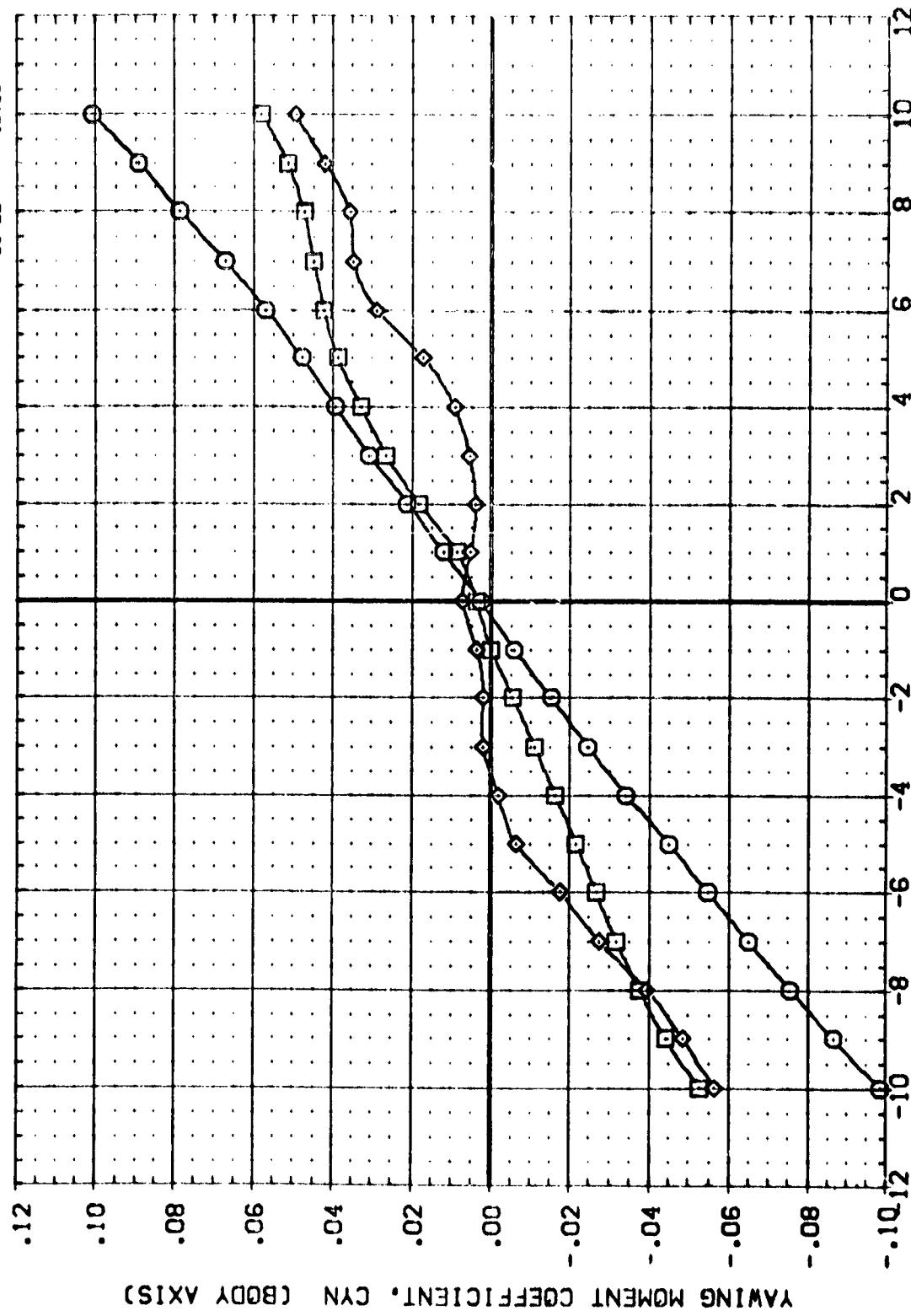
[RTLO02]	AEDC VA-422(A-57)	ISOLATED ORB/ET	SRBPOS	RVAL	PT-JET	ALPHA	REFERENCE INFORMATION
[RTLO14]	AEDC VA-422(A-57)	ORB/ET WRIGHT SRB	.100	.1760	1500.000	.000	SREF 2650 SQ.FT.
[RTLO38]	AEDC VA-422(A-57)	CRB/ET W/BOTH SRB	1.100	.1760	1500.000	.000	SREF 2650 SQ.FT.
							XWSP 1250 SQ.FT.
							YWSP 1150 SQ.FT.
							ZWSP 447.0100



EFFECT OF SRB ON 0/ET CHARACT. POSITION 1, PT/JET=1500;  
(A)<sub>MACH</sub> = 4.50

DATA SET SRT03. CONFIGURATION DESCRIPTION  
 (RTL002) AEDC VA-422 [A-57]. ISOLATED ORBET  
 (RTL014) AEDC VA-422 [A-57]. ORBET V/RIGHT SRB  
 (RTL035) AEDC VA-422 [A-57]. ORBET V/BOTH SRB

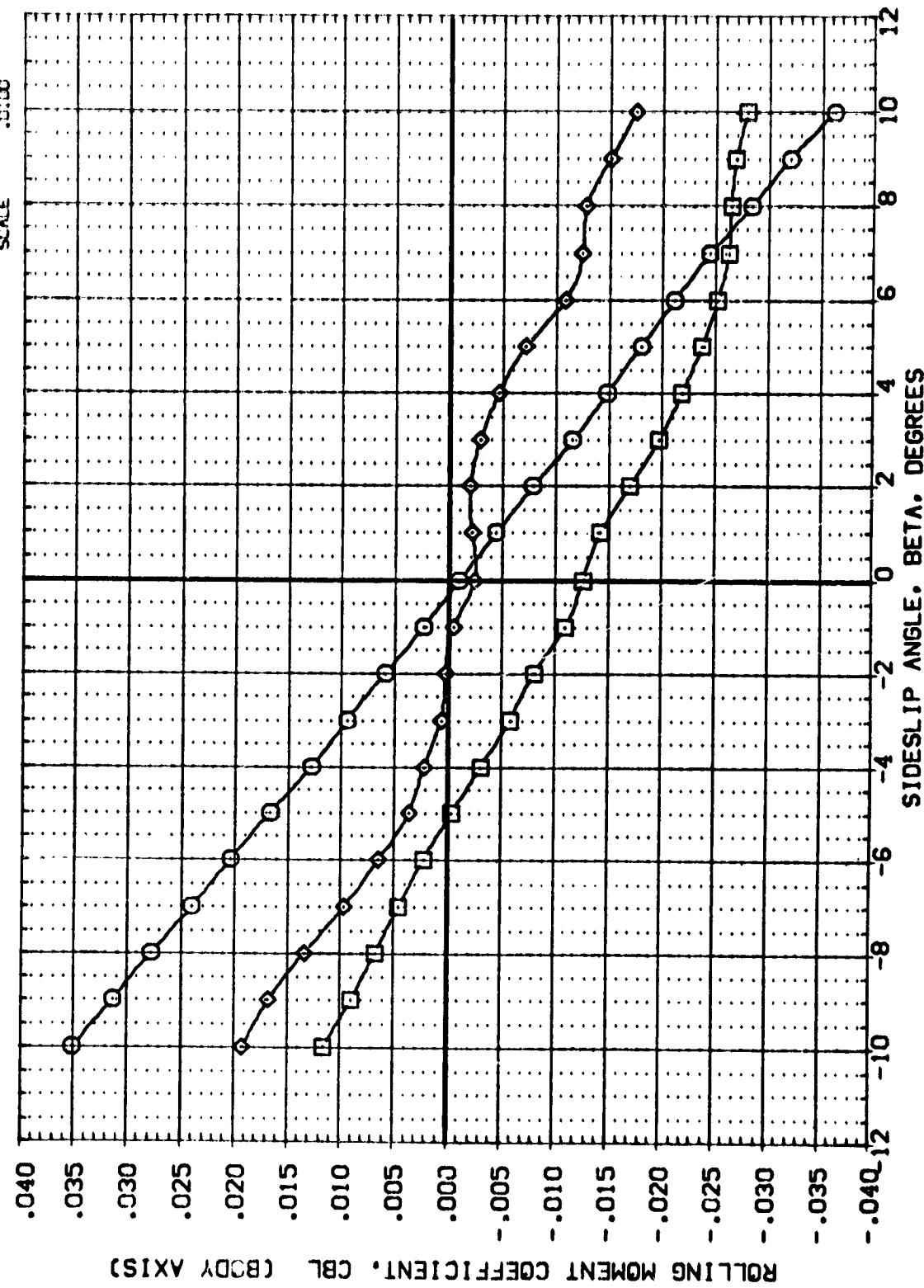
	SRBPOS	RVAL	PT-JET	ALPHA	REFERENCE INFORMATION
SRBREF	.2620	.3000	.1000	.000	SREF 1.750 SQ.FT.
LREF	.1260	.3000	.1000	.000	BREF 1.750 SQ.FT.
YREF	.1652	.0000	.1000	.000	XREF 1.750 SQ.FT.
ZREF	.447	.3000	.1000	.000	ZREF 1.750 SQ.FT.
SCALE	.2100				



EFFECT OF SRB ON O/E/T CHART. (POSITION 1, PT/JET=1500)  
 $(\lambda)MACH = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLOD2) O ISOLATED GRB/ET  
 (RTLOD4) □ GRB/ET V/BOTH SRB  
 (RTLOD38) △ GRB/ET V/BOTH SRB

SPEEDS RNL PT-JET ALPHA REFERENCE INFORMATION  
 1.00 1.760 1500.000 SREF 2650.000 SD. ET.  
 1.00 1.760 1500.000 LREF 1250.3000 N.  
 .000 .000 BREF 1250.3000 N.  
 XRPD 1052.5000 N. ZT  
 YRPD 447.3000 N. ZT  
 ZRPD 447.3000 N. ZT  
 SCALE .0100



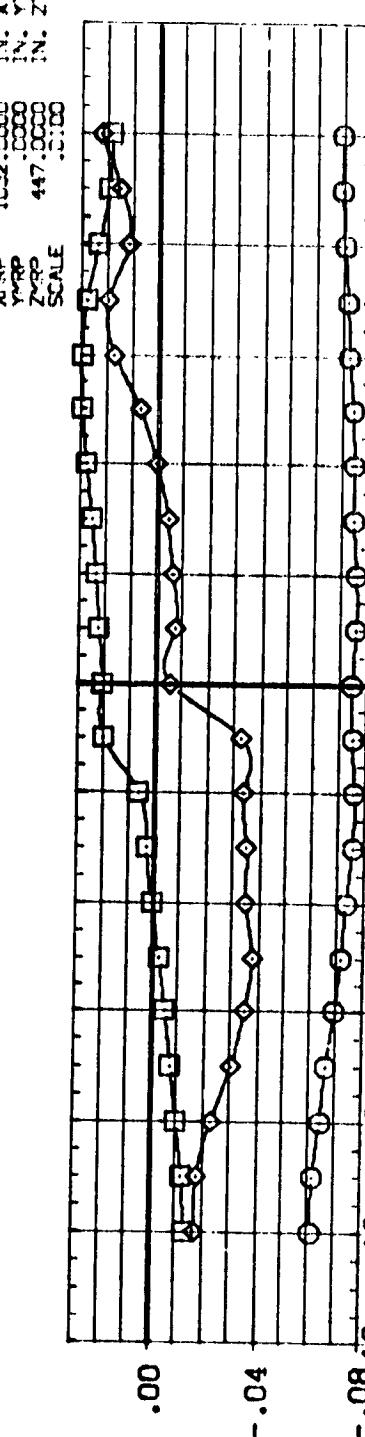
EFFECT OF SRB ON 0/ET CHRACT. (POSITION 1, PT/JET=1500)  
 $(\text{A})_{\text{MACH}} = 4.50$

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

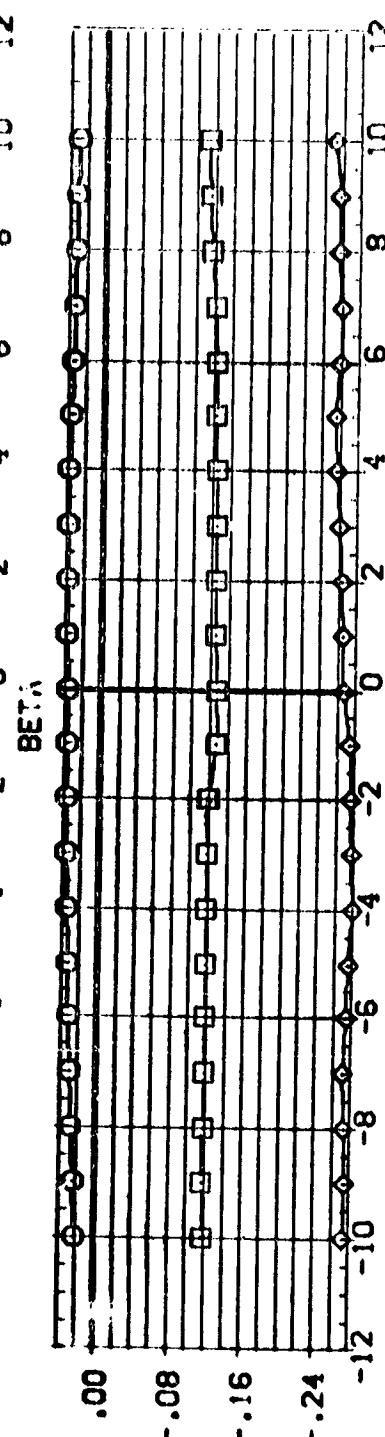
[RPL002]	AEDC VA-422(IA-57).
[RPL014]	AEDC VA-422(IA-57).
[RPL039]	AEDC VA-422(IA-57). ISOLATED ORBET ORBET/WRIGHT SRB ORBET W/BOTH SRB

REFERENCE INFORMATION

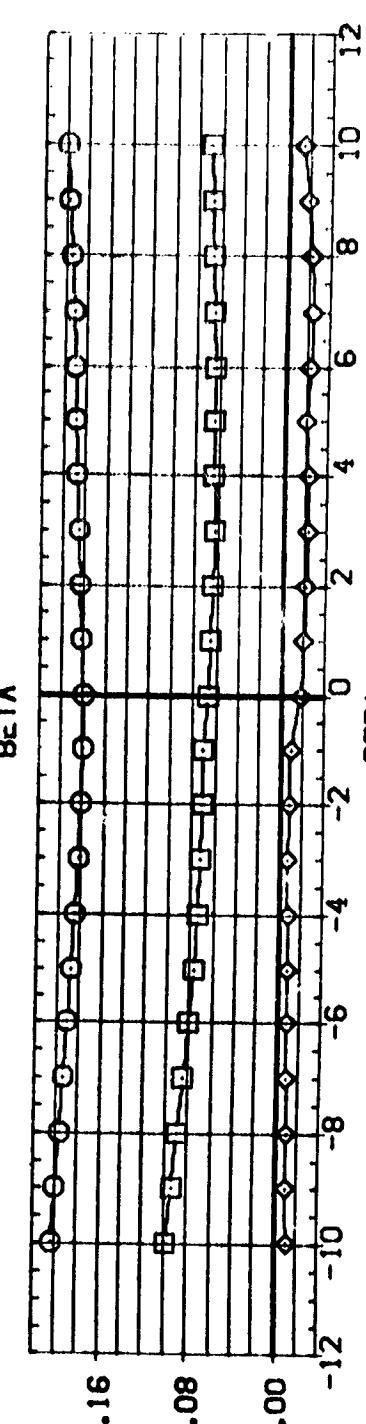
SREF	2680.0000	SD.FT.
LREF	1250.0000	IN.
BREF	1250.3000	IN.
XRP	1052.0000	IN. XT
YRP	447.0000	IN. YT
ZRP	-1.0000	IN. ZT
SCALE		



Cn



Clm

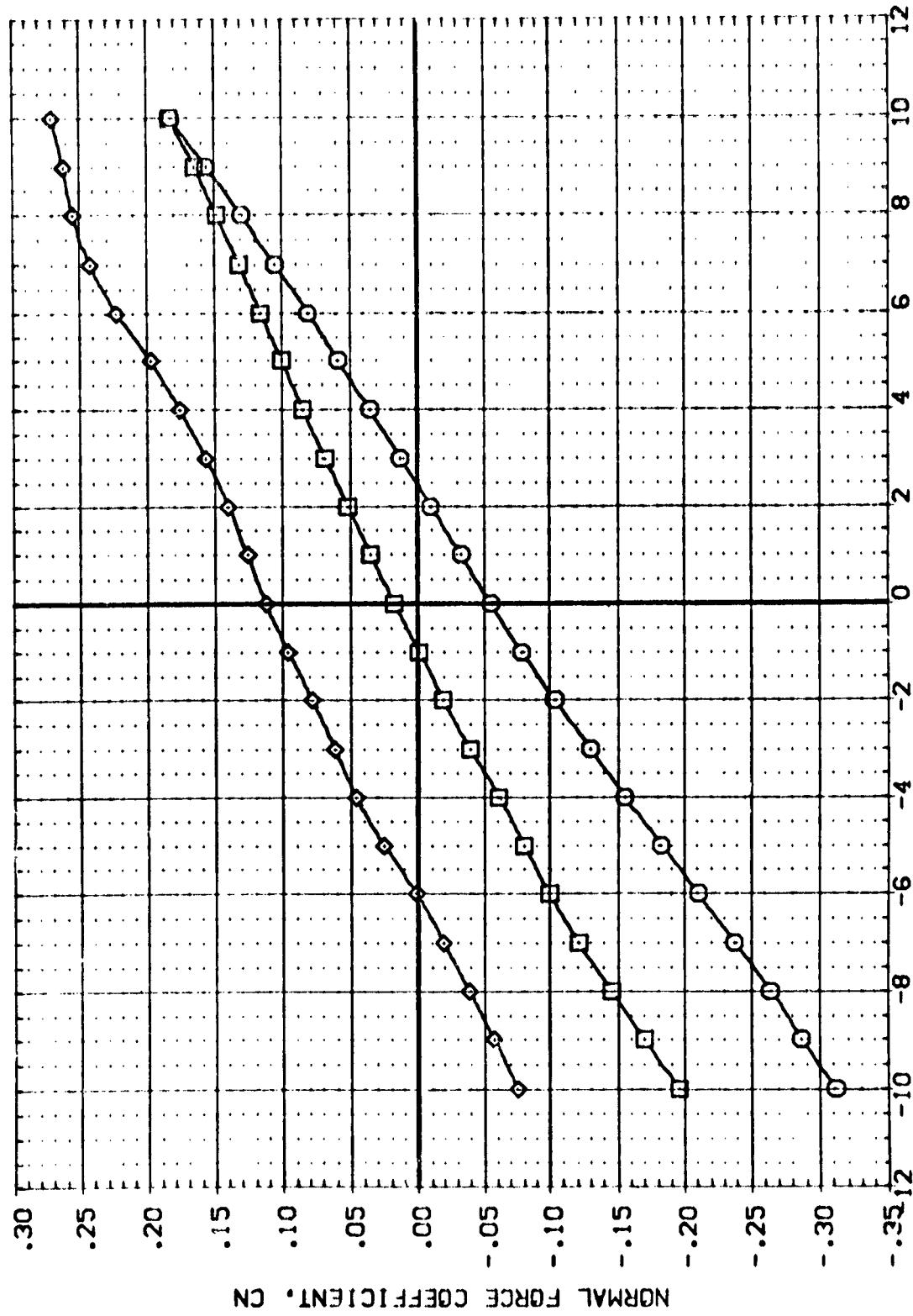


Ca

EFFECT OF SRB ON C/ET CHARACT. (POSITION 1, PT/JET=1500)  
(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (PT,LOC) AEDC VA-422 (A-57), ISOLATED SRB/JET  
 (PT,LOC2) AEDC VA-422 (A-57), CRB/JET V/BOTH 2/6  
 (PT,LOC3) AEDC VA-422 (A-57), CRB/JET V/BOTH 2/6

REFERENCE INFORMATION  
 SRBPOS RNL PT-JET BETA  
 .200 1.760 1500.000 .000  
 2.250 1.760 1500.000 .000  
 SCALING  
 4.47 37.500

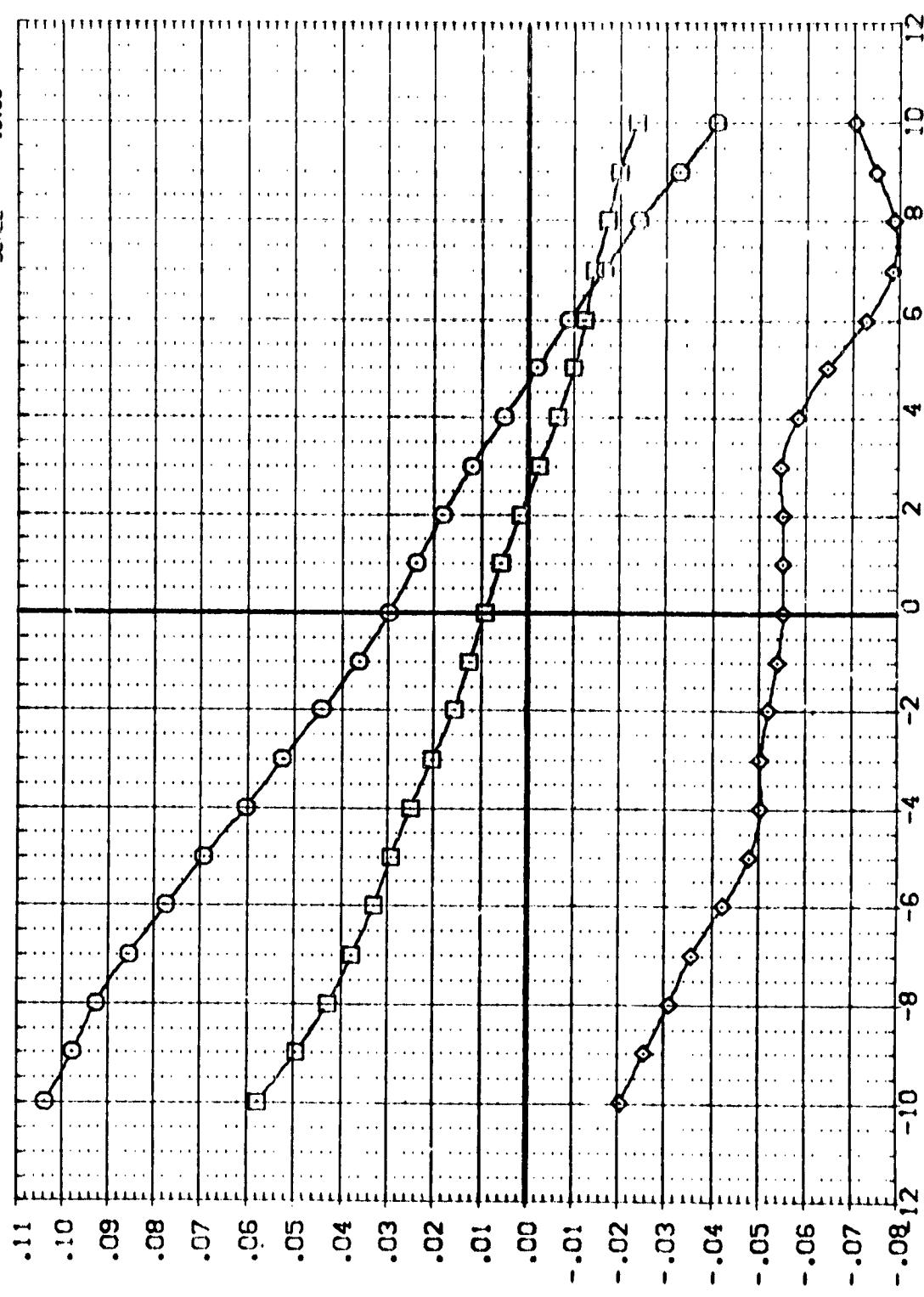


EFFECT OF SRB ON 0/ET CHARACT. (POSITION 2, PT/JET=1500)  
 (AOA MACH = 4.50)

## DATA SET SYMBOL CONFIGURATION DESCRIPTION

[CRTL001] AEDC VA-422([A-57]): ISOLATED O/R/ET  
[AEDC VA-422([A-57]): O/R/ET WRIGHT SRB  
[AEDC VA-422([A-57]): O/R/ET W/BOOTH SRB

REFERENCE INTERPRETATION  
SRB/ET 2630.0000 SQ.FT.  
REF 260.3000 SQ.FT.  
REF 250.3000 SQ.FT.  
XRPD 152.0000 SQ.FT.  
YRPD 447.0000 SQ.FT.  
ZRPD 247.0000 SQ.FT.  
SCALE

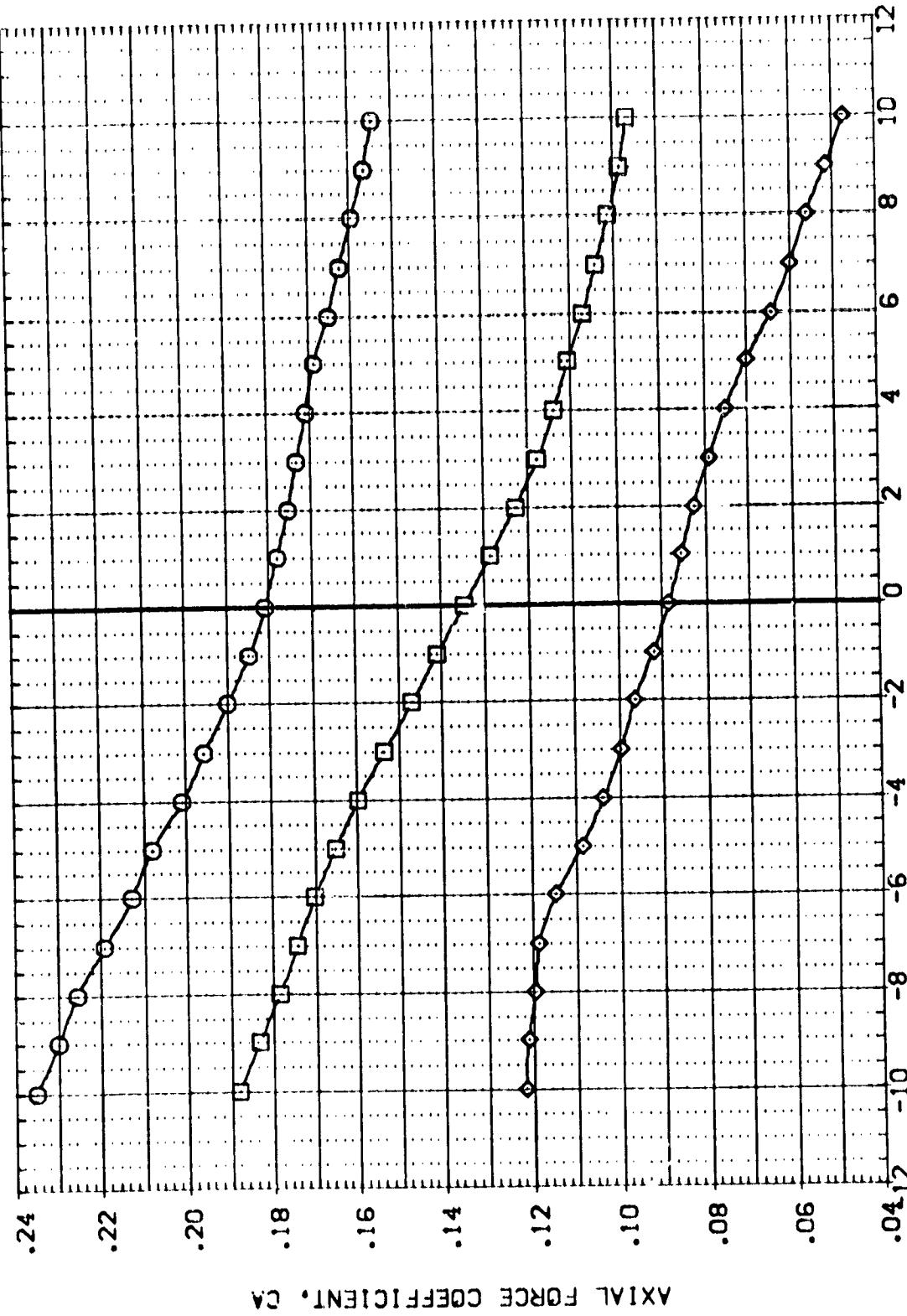


EFFECT OF SRB ON O/ET CHARACT. (POSITION 2, PT/JET=1500)

(A) MACH = 4.50

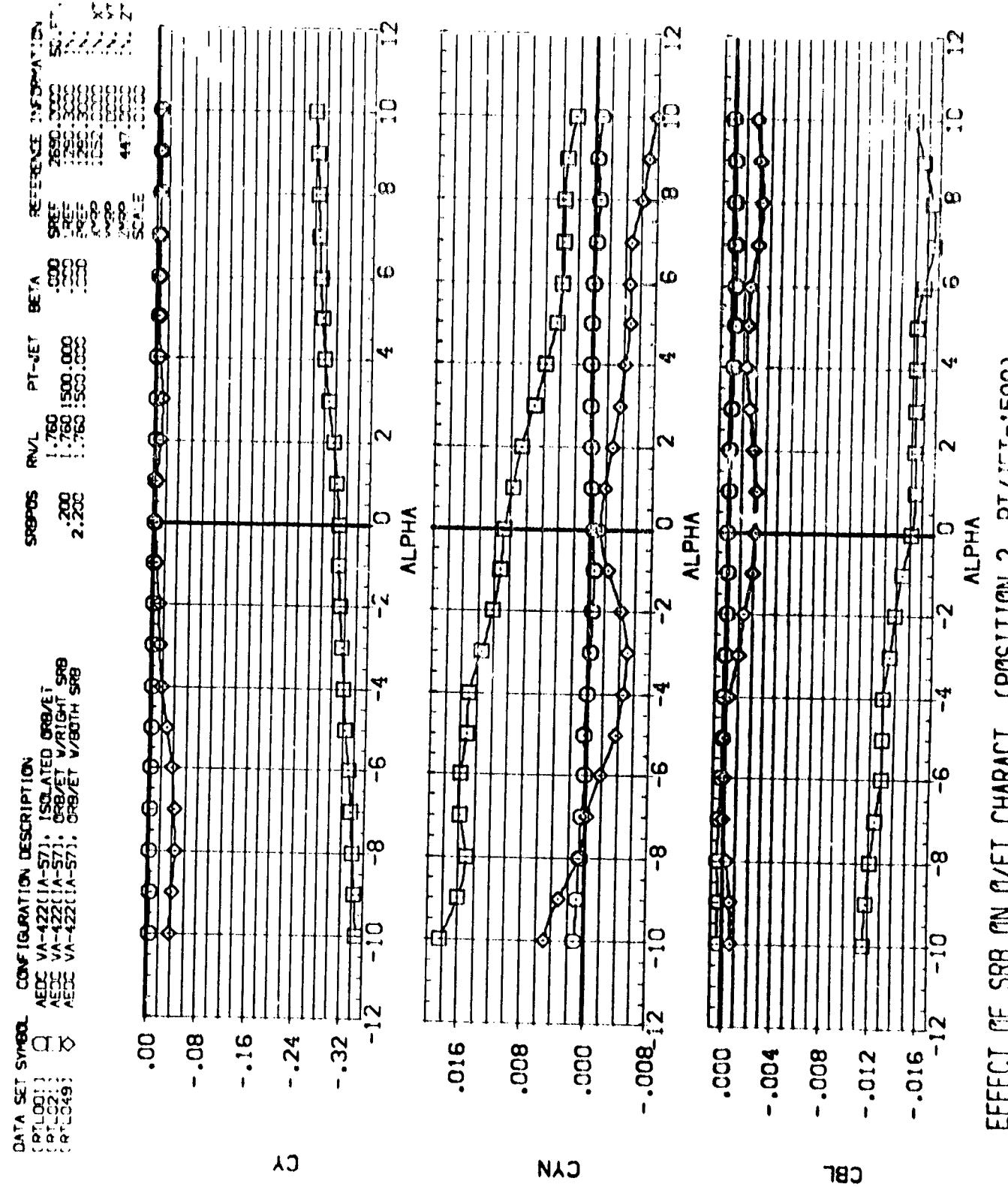
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(PT-001)	AEDC VA-4221(A-571) ISOLATE
(PT-024)	AEDC VA-4221(A-571) CRE/ET
(PT-24a)	AEDC VA-4221(A-571) CRET

SPEEDS	R/V/L	PT-JET	BETA	REFERENCE INSPIRATION	SC. LT.	
					SPEC	2500
2.00	1.760	1500.000	.000	1500.000	1500	1500
2.200	1.760	1500.000	.000	1500.000	1500	1500



EFFECT OF SRB ON JET CHARACTERISTICS POSITION 2, PI/JET=15000

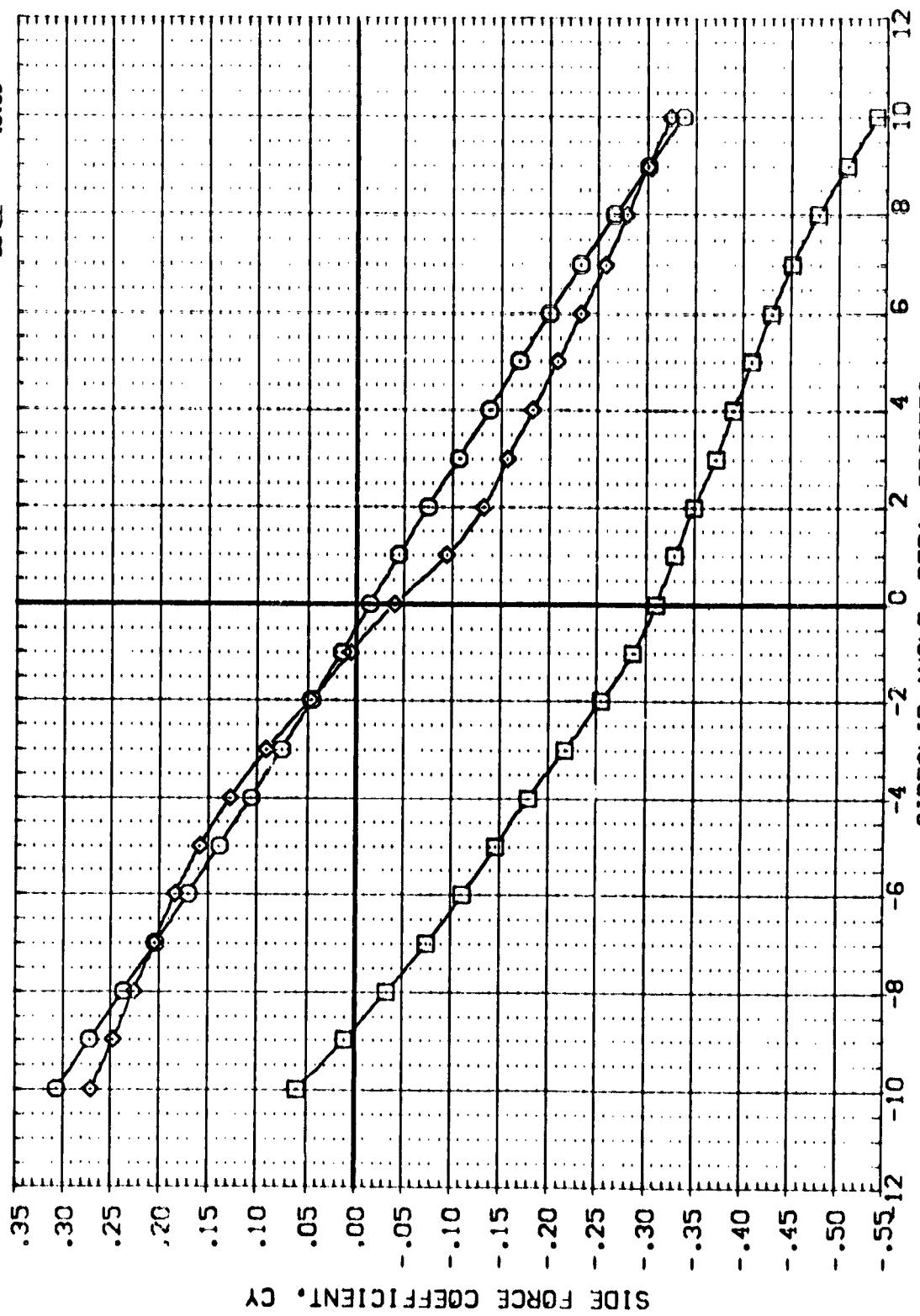
$$[O]_{MACH} = 4 : 50$$



EFFECT OF SRB ON 0/ET CHARACT. (POSITION 2, PT/JET=1500)  
 (MACH = 4.50)

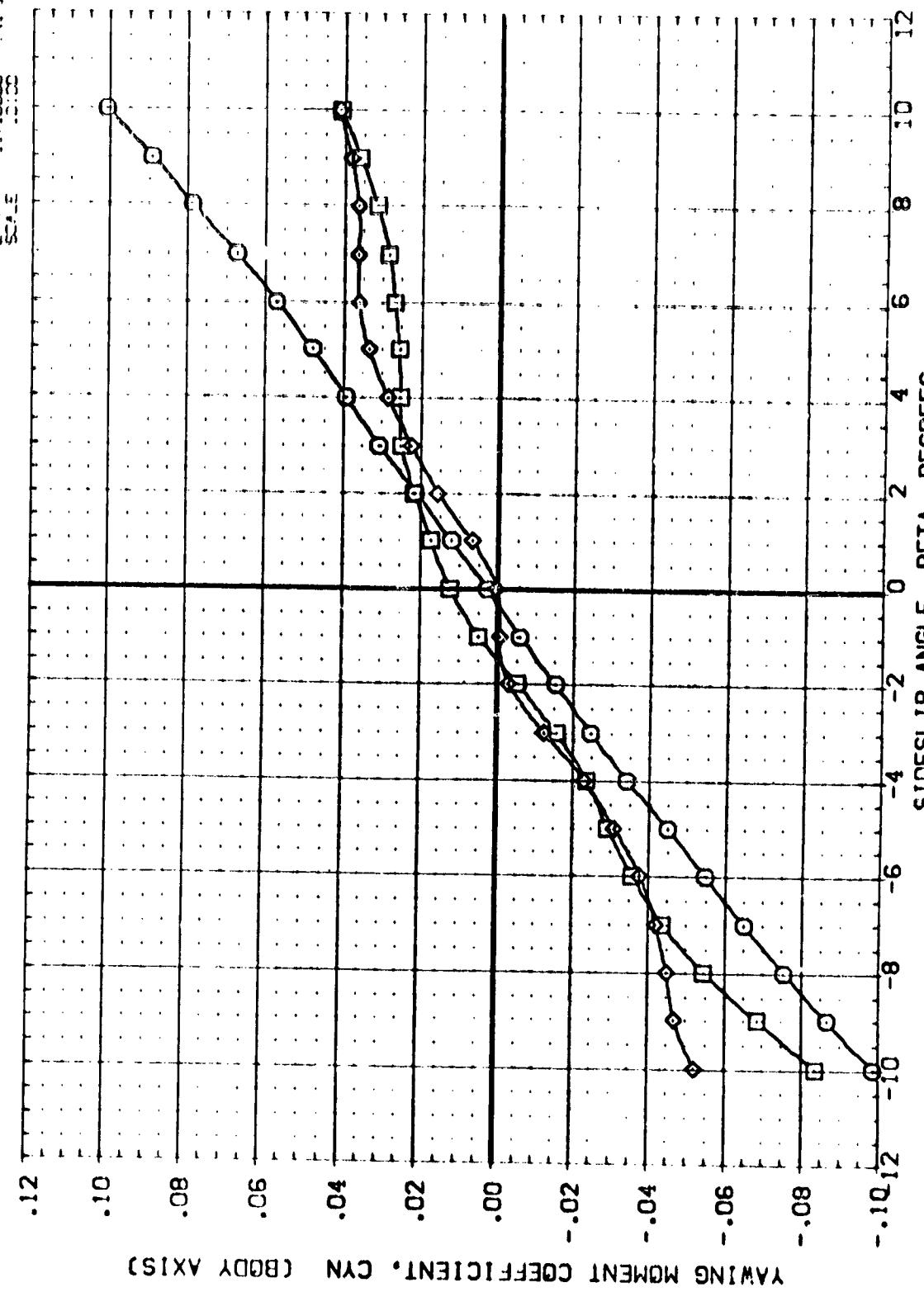
PAGE : 112

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	AVL	PT-JET	ALPHA	REFERENCE INFORMATION
RT-002	AEDC VA-422(A-57) ISOLATED GRB/ET	.200	1.760	1500.000	269.000	SOFT
RT-022	AEDC VA-422(A-57) GRB/ET VARIOUS SRBs	.230	1.760	1500.000	280.000	SOFT
RT-050	AEDC VA-422(A-57) GRB/ET VARIOUS SRBs	.230	1.760	1500.000	300.000	SOFT



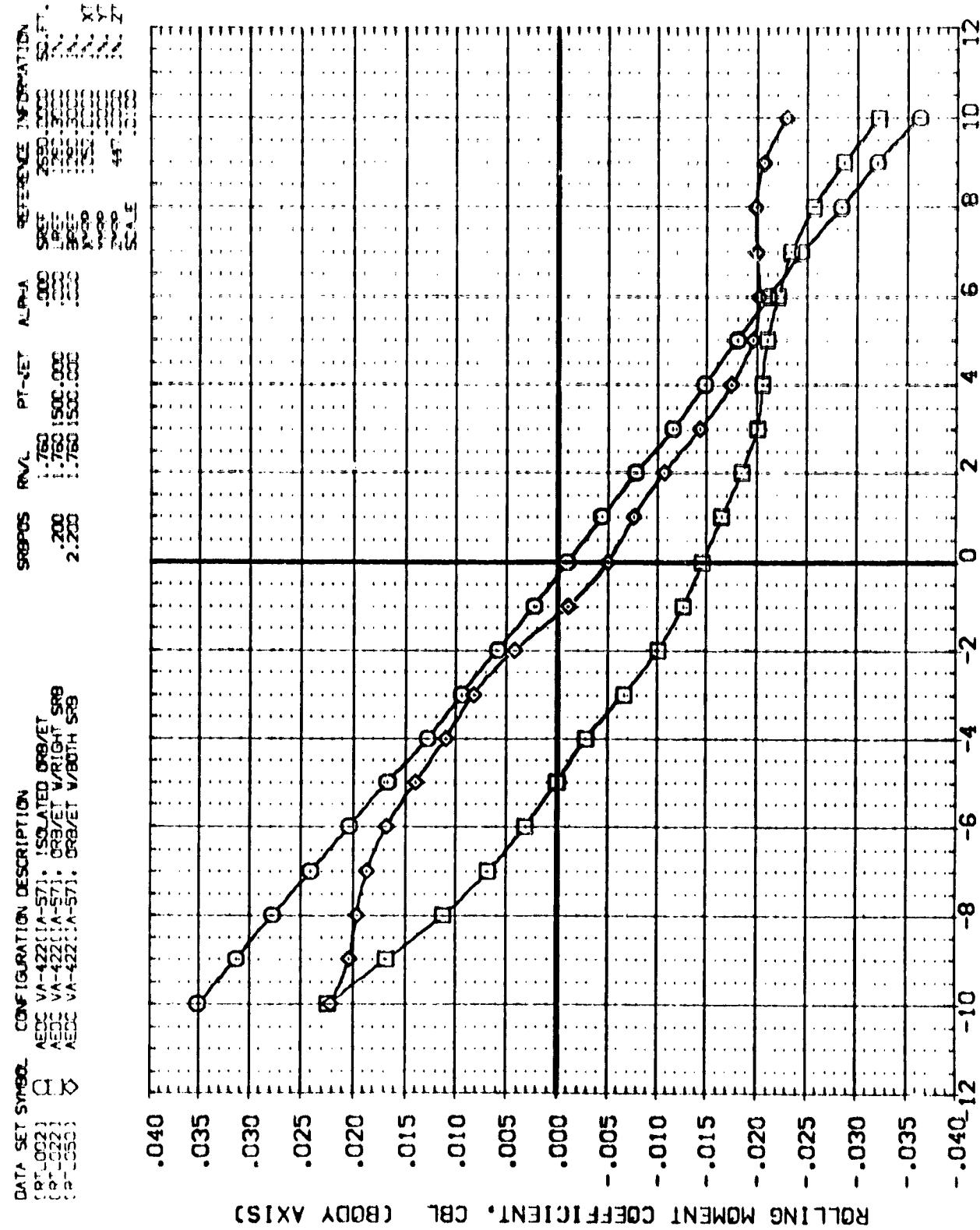
EFFECT OF SRB ON G/ET CHARACT. (POSITION 2, PT/JET=1500)  
(A) MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRTL002 AEDC VA-422(LA-57). ISOLATED ORB/ET  
 CRT\_C02 AEDC VA-422(LA-57). GRB/ET W/RIGHT SRB  
 CRT\_C55 AEDC VA-422(LA-57). GRB/ET V/BOTH SRB



EFFECT OF SRB ON O/ET CHARACT. (POSITION 2, PT/JET=1500)  
 (MACH = 4.50)

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EFFECT OF SRB ON CBL CHARACTER. (POSITION 2, PT/JET=1500)

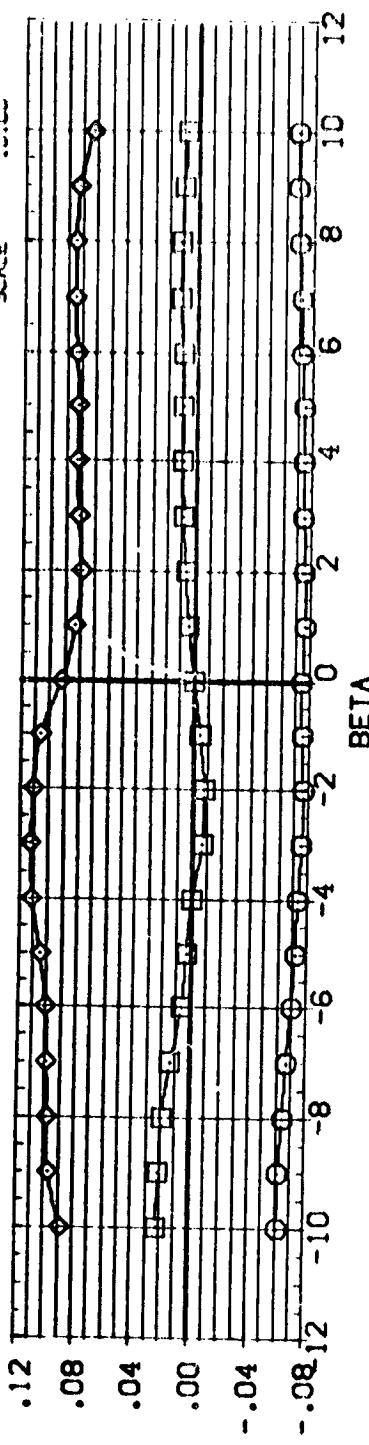
( $\alpha$ ) MACH = 4.50

DATA SET SYMBOL      CONFIGURATION DESCRIPTION

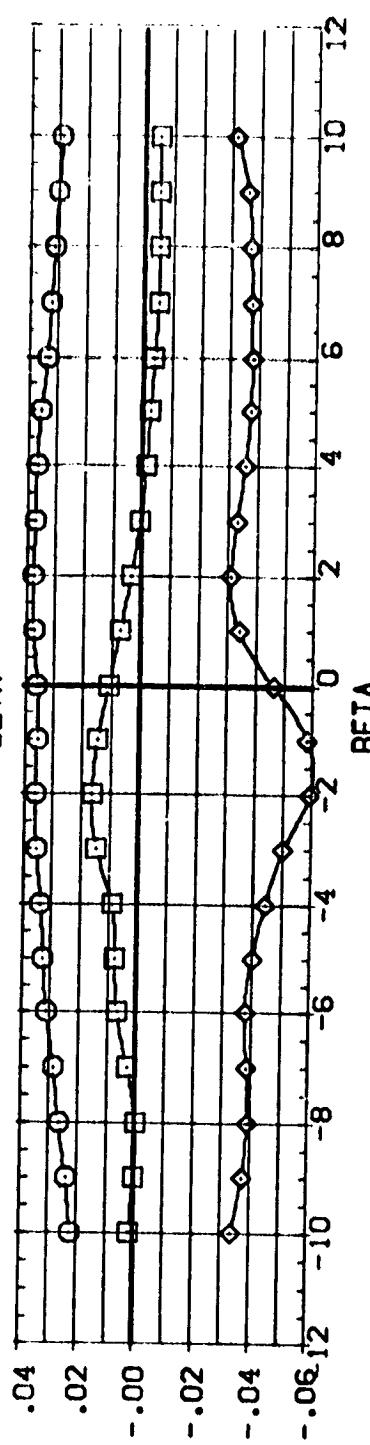
[RTLO02]	AEDC VA-422(A-57)	ISOLATED SRB/ET
[RTLO22]	AEDC VA-422(A-57)	CRB/ET WRIGHT SRB
[RTLO50]	AEDC VA-422(A-57)	CRB/ET V BOTH SRB

SRBPOS      RNL      PT-JET      ALPHA      REFERENCE INFORMATION

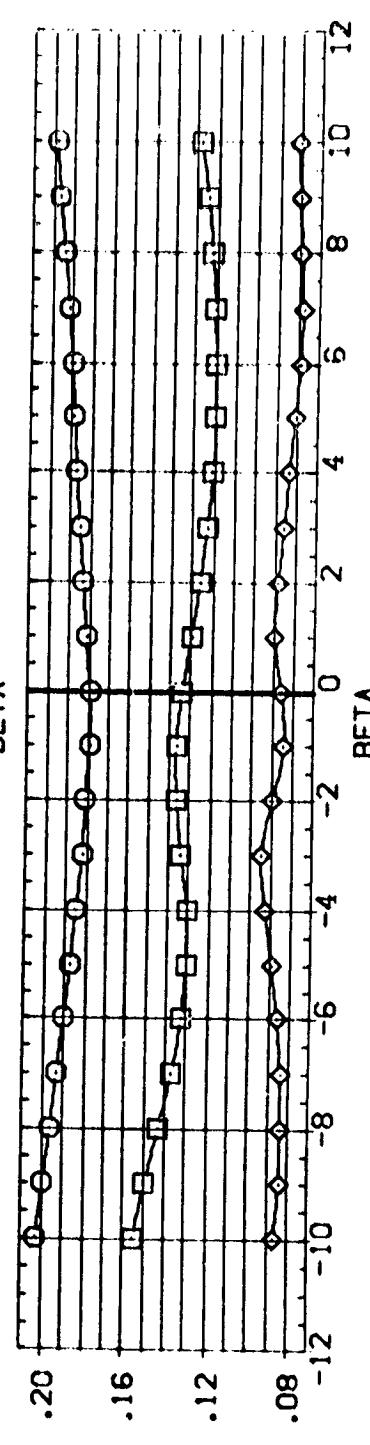
2.200	.760	1500,000	.000	SREF 2350,0000 REF 1250,3000 SREF 1250,3000 SREF 1352,3000 JETP 447,3000 VNP 447,3000 SCALE .313
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Cn



CLM

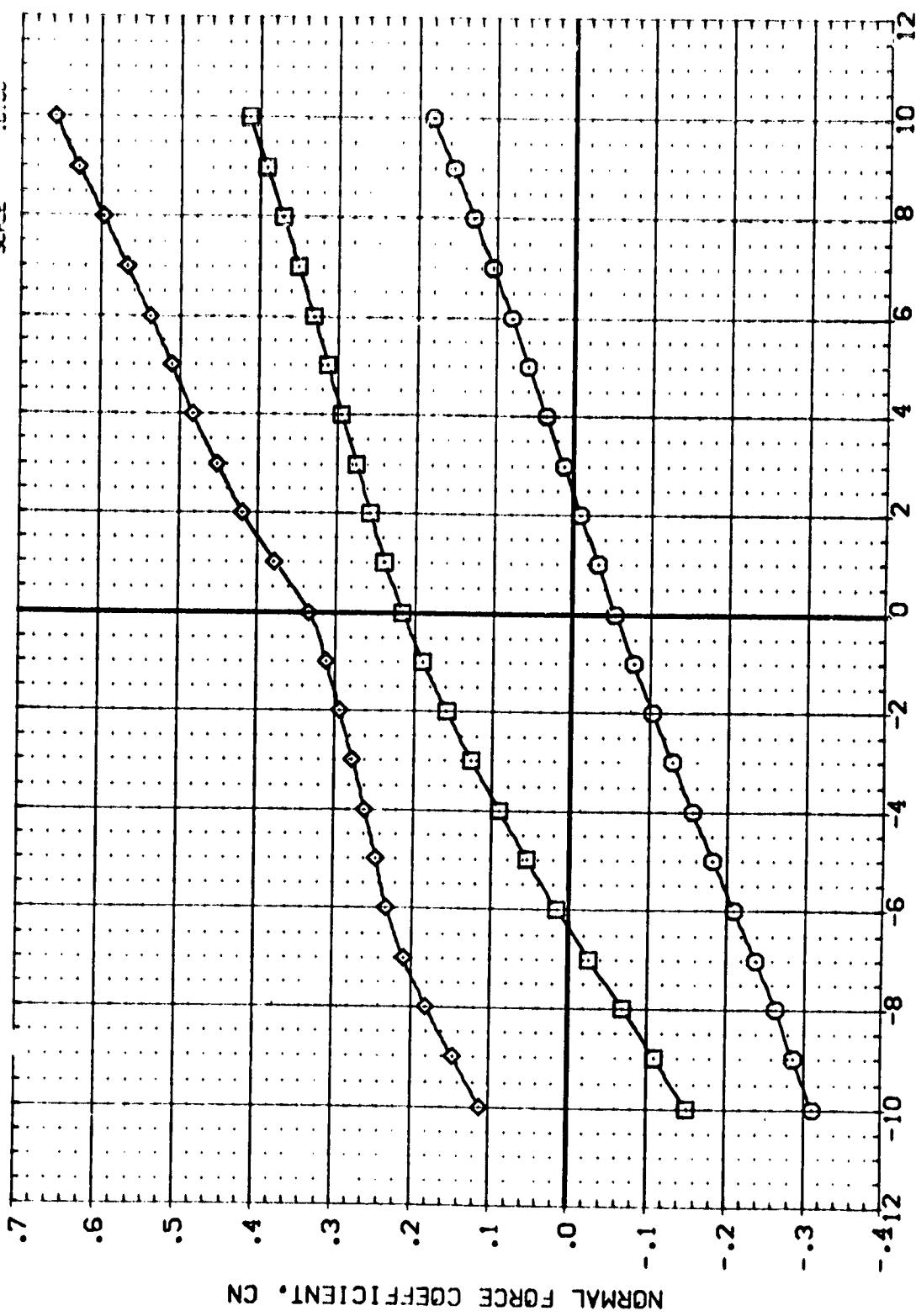


CA

EFFECT OF SRB ON 0/ET CHARACT. (POSITION 2, PT/JET=1500)  
(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLOC1) AEDC VA-422(A-57) ISOLATED ORB/JET  
 (RTLOC2) AEDC VA-422(A-57) ORB/JET V/RIGHT SRB  
 (RTLOC3) AEDC VA-422(A-57) ORB/JET V/BOTH SRB

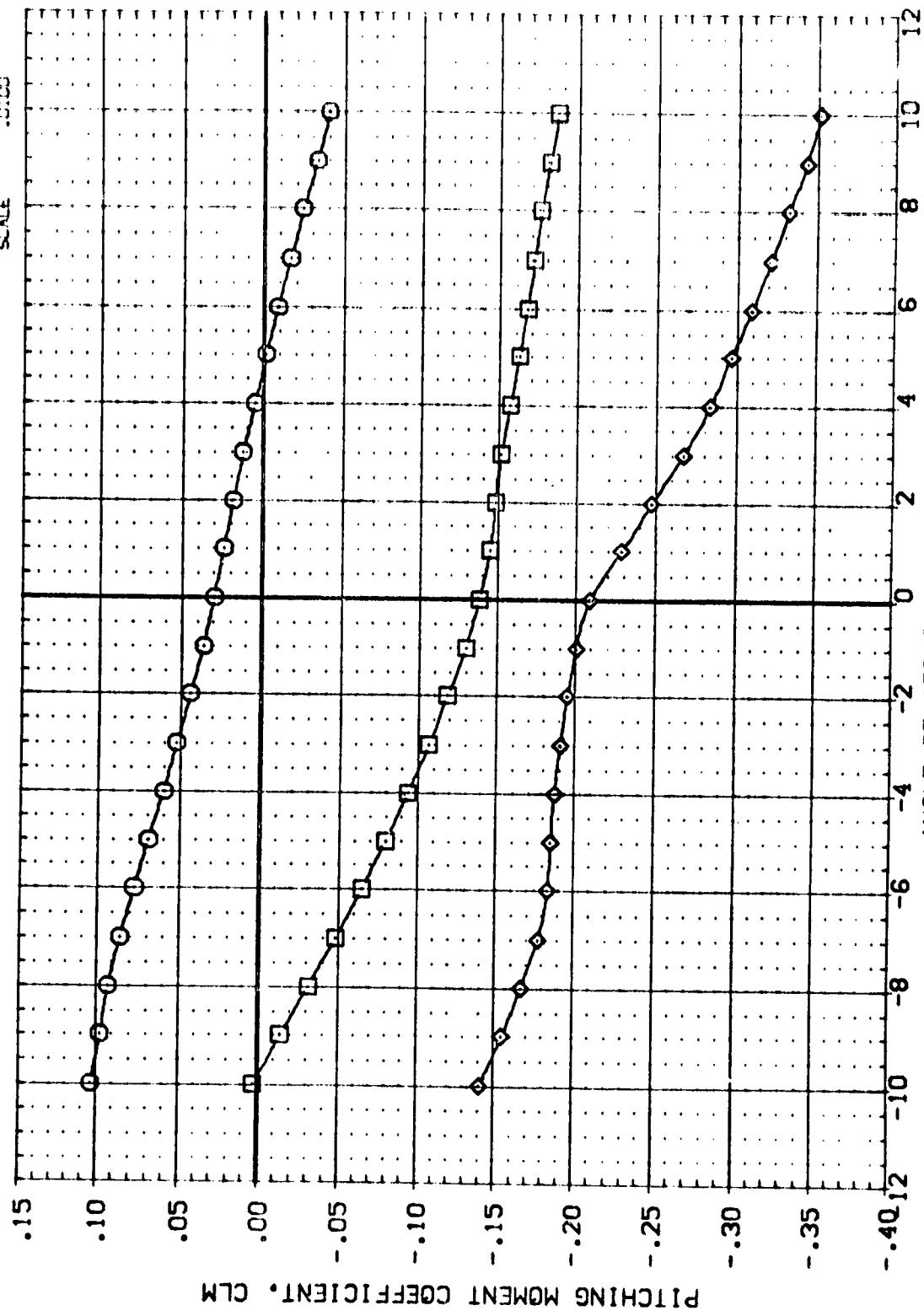
SRBPOS RVN PT-JET BETA REFERENCE INFORMATION  
 .300 1.760 1500.000 .000 SRBF 2680.3000 SOFT.  
 .300 1.760 1500.000 .000 LREF 1280.3000  
 .300 1.760 1500.000 .000 BRE 1280.3000  
 .300 1.760 1500.000 .000 XREF 1352.3000  
 .300 1.760 1500.000 .000 YREF 1352.3000  
 .300 1.760 1500.000 .000 ZREF 447.3000  
 SCALE .000



EFFECT OF SRB ON O/E/T CHART. (POSITION 3, PT/JET=1500)  
 (A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL001) AEDC VA-422(IA-57). ISOLATED GRB/JET  
 (RTL029) AEDC VA-422(IA-57). GRB/JET W/RIGHT SRB  
 (RTL060) AEDC VA-422(IA-57). GRB/JET W/BOTH SRB

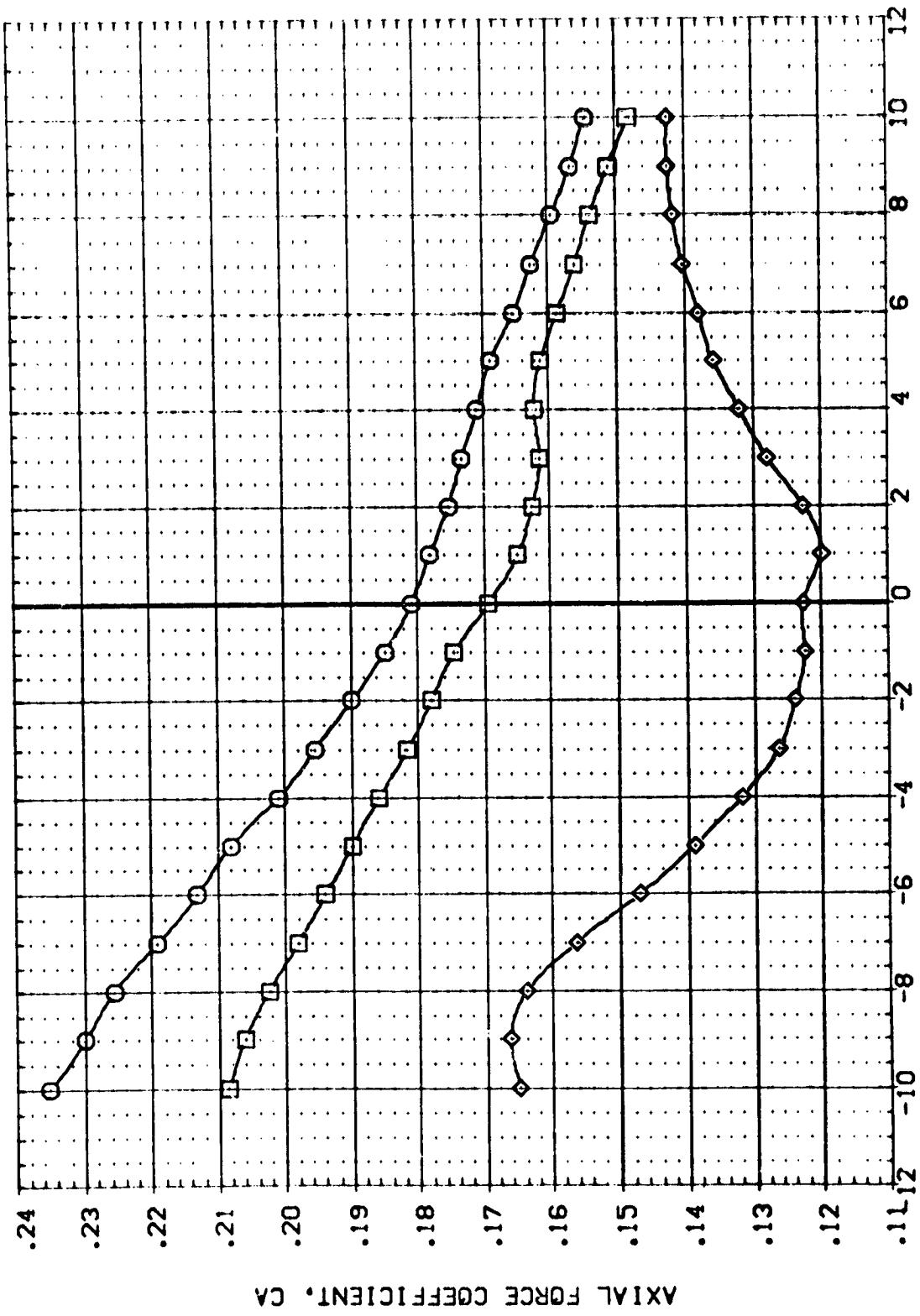
SRBPOS	RNL	PT-JET	BETA	REFERENCE INSURATION
.000	1.760	1500.000	.000	SREF 2690.0000 IN. FT.
.000	1.760	1500.000	.000	SREF 2690.0000 IN. FT.
.000	1.760	1500.000	.000	BREF 1290.3000 IN. FT.
.000	1.760	1500.000	.000	XRP 152.0000 IN. FT.
.000	1.760	1500.000	.000	YRP 447.0000 IN. FT.
.000	1.760	1500.000	.000	ZRP .315 SCALE



EFFECT OF SRB ON GRB/JET CHARACTER. (POSITION 3, PT/JET=1500)  
 (A) MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL001) AEDC VA-4222(IA-57). ISOLATED GRB/JET  
 (RTL029) AEDC VA-4222(IA-57). GRB/JET V/RIGHT SRB  
 (RTL060) AEDC VA-4222(IA-57). GRB/JET V/BOTH SRB

SRBPOS RAVL PT-JET BETA REFERENCE INFORMATION  
 .300 1.760 1500.000 .000 SREF 2650.000 SQ.FT.  
 3.300 1.760 1500.000 .000 SREF 1250.300 SQ.FT.  
 X=20 Y=20 Z=20  
 2\*REF 447.1500.000  
 SCALE .01:00



AXIAL FORCE COEFFICIENT, CA

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

EFFECT OF SRB ON 0/ET CHRACT. (POSITION 3, PT/JET=1500)

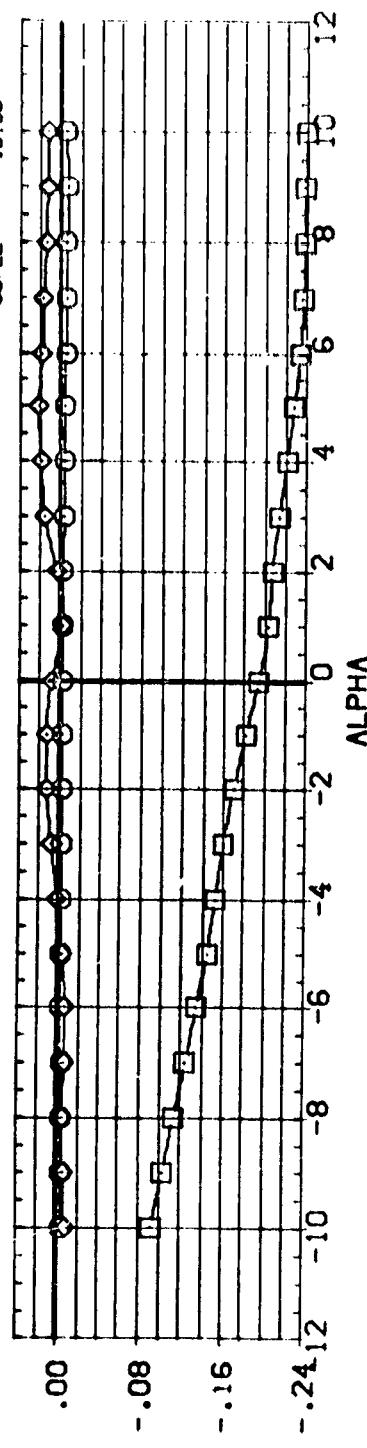
(A)MACH = 4.50

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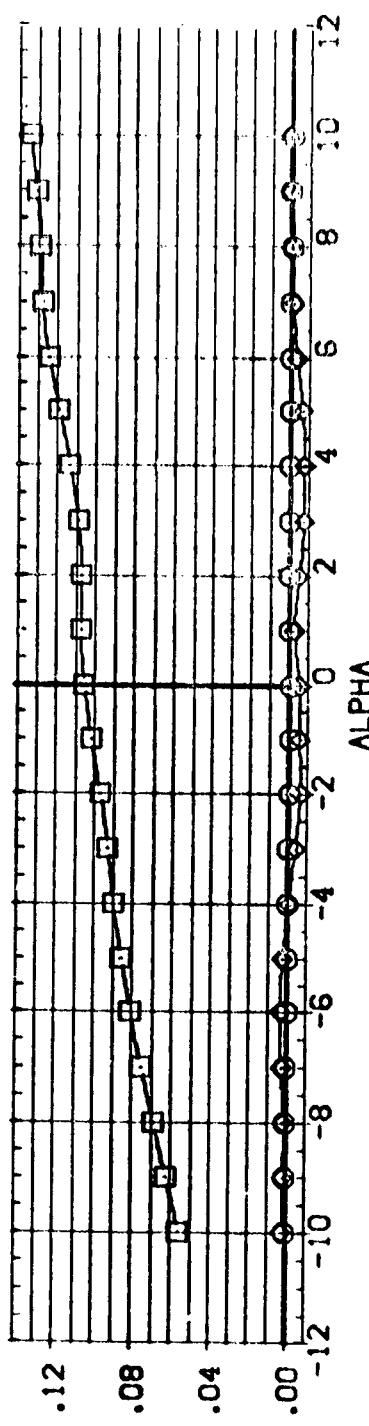
## DATA SET SNAME

[CRTL001] AEDC VA-422[IA-57]; ISOLATED SRB/ET  
 [CRTL029] AEDC VA-422[IA-57]; ORB/ET VRIGHT SRB  
 [CRTL060] AEDC VA-422[IA-57]; ORB/ET V/BOTH SRB

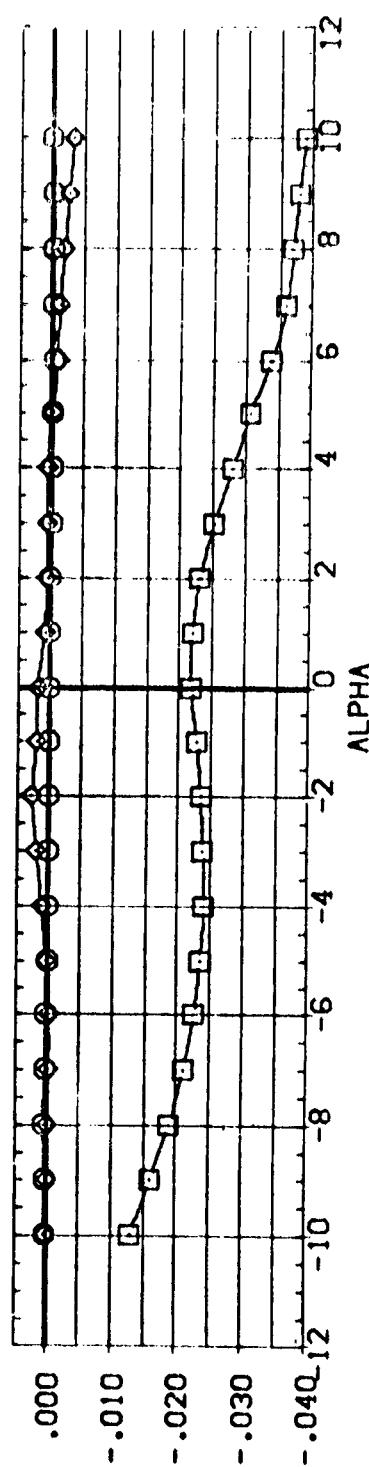
REFERENCE INFORMATION  
 SRPOS 1.760 PT-JET .000 SRREF 2890.0000 SQ.F.  
 3:300 1.760 1500.000 0.000 LREF 1250.3000 IN.  
 1.760 1500.000 0.000 RREF 1250.3000 IN.  
 ATRP .452 .0000 ZREF 447 .0000 IN.  
 YREF .452 .0000 ZREF 447 .0000 IN.  
 SCALE .0100



Cx



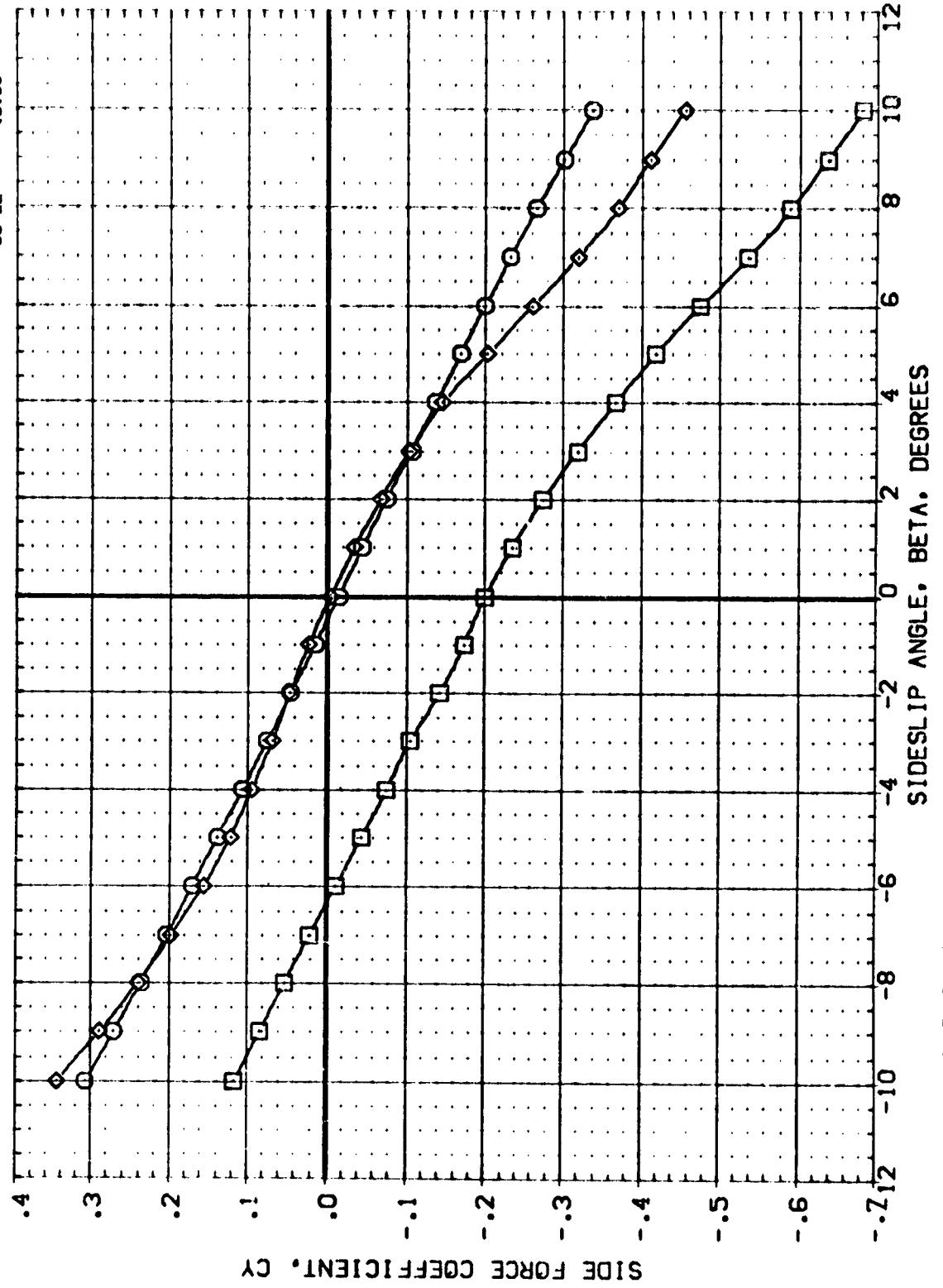
CY



CBL

EFFECT OF SRB ON O/ET CHARACT. (POSITION 3, PT/JET=1500)  
 $(\alpha)_{MACH} = 4.50$

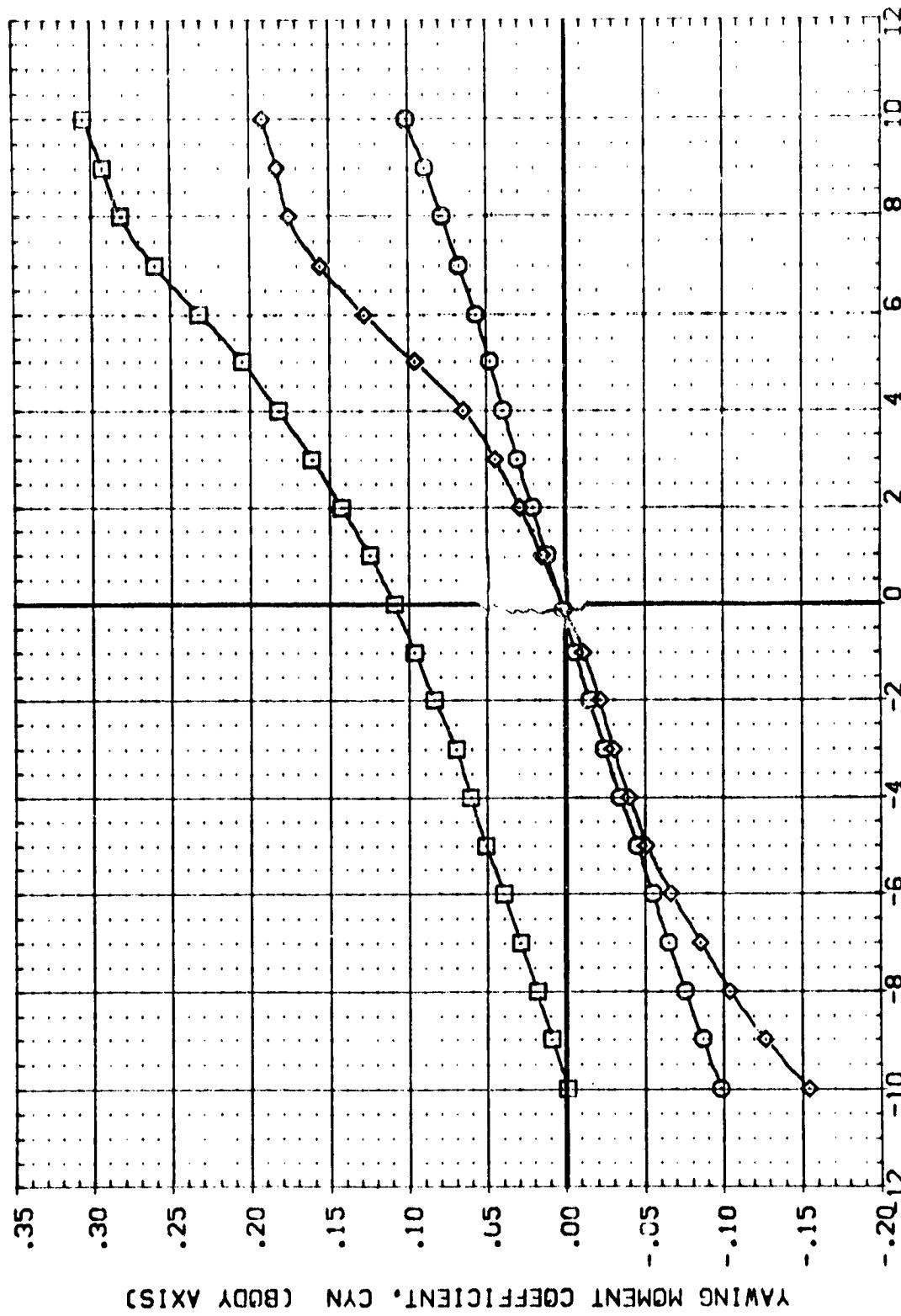
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL002) AEDC VA-4221(A-57) ISOLATED ORBIT/JET  
 (RTL030) AEDC VA-4221(A-57) ORB/ET VRIGHT SRB  
 (RTL051) AEDC VA-4221(A-57) ORB/ET V/BOTH SRB



EFFECT OF SRB ON C/ET CHARACT. (POSITION 3, PT/JET=1500)  
(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLO02) AEDC VA-422 (A-57), ISOLATED ORB/ET  
 (RTLO30) AEDC VA-422 (A-57), ORB/ET w/RIGHT SRB  
 (RTLO61) AEDC VA-422 (A-57), ORB/ET w/BOTH SRB

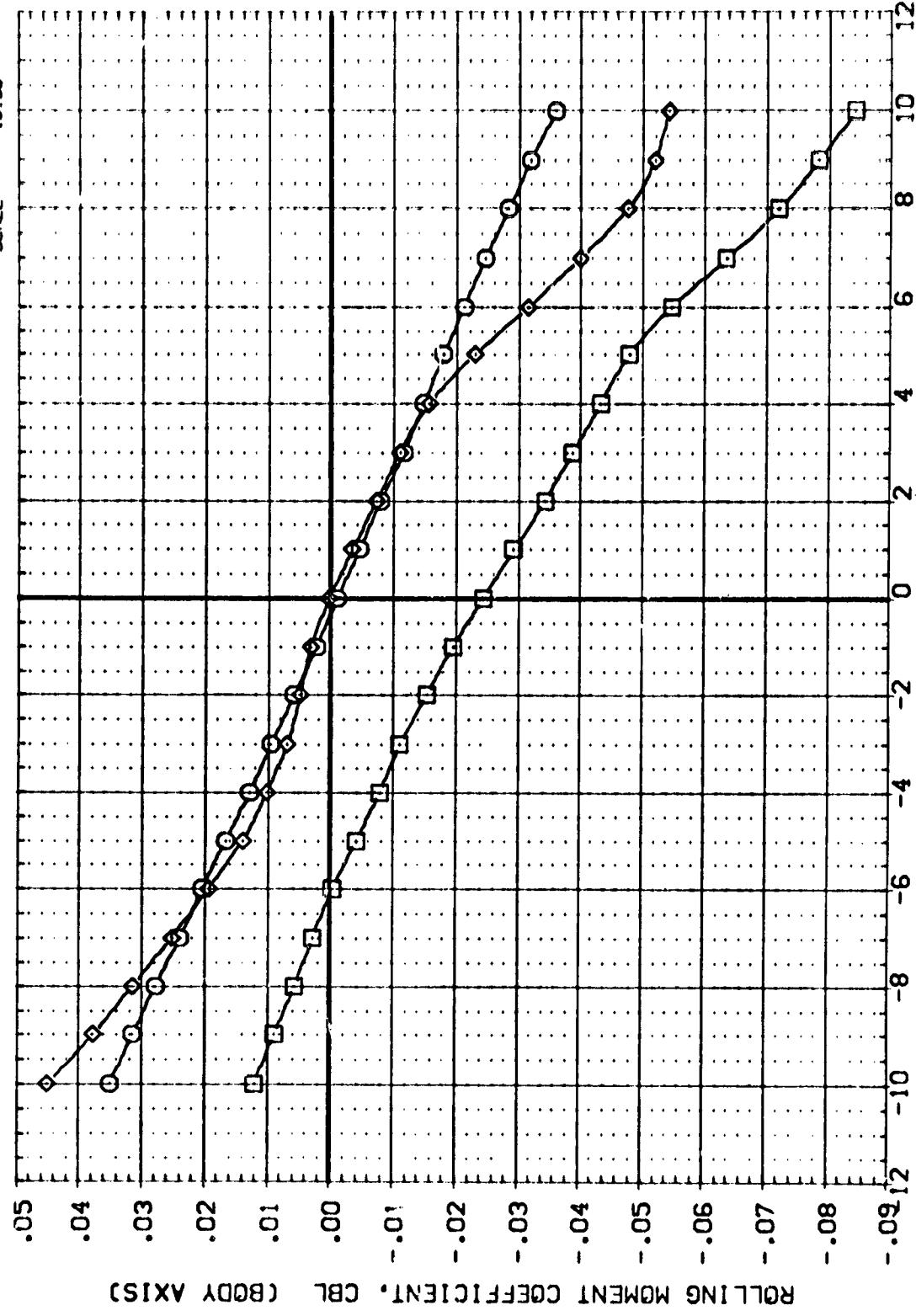
SRPOS RVEL PT-JET ALPHA REFERENCE INFORMATION  
 .300 1.760 1500.000 SREF 2650.000 SC.FT.  
 .300 1.760 1500.000 LREF 1250.300  
 .300 1.760 1500.000 SREF 1052.000  
 .300 1.760 1500.000 XREF 1040.000  
 .300 1.760 1500.000 YREF 447.000  
 .300 1.760 1500.000 ZREF 27.000  
 SCALE .0100



EFFECT OF SRB ON O/ET CHRACT. POSITION 3, PT/JET=1500  
 (A)MACH = .50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRT-0021 AEDC VA-422([A-57]): ISOLATED ORB/ET  
 CRTLC32 AEDC VA-422([A-57]): ORB/ET V/RIGHT SRB  
 CRTLG61 AEDC VA-422([A-57]): GRB/ET V/BOTH SRB

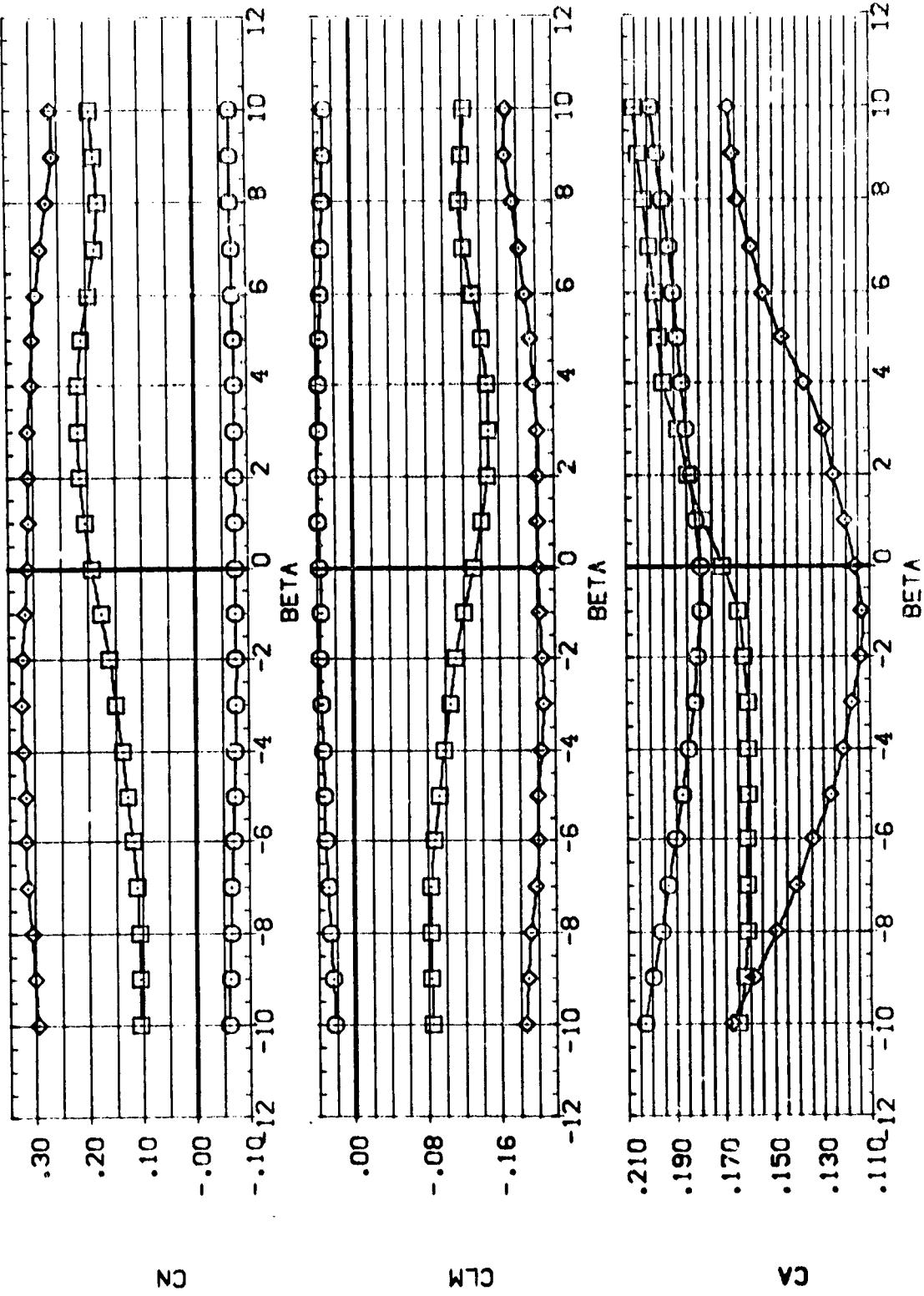
SRBPOS RBL PT-JET ALPHA REFERENCE INFORMATION  
 .300 .760 .000 .000 2630.000 SQ.FT.  
 .300 .760 1500.000 .000 LREF 1290.300  
 .300 .760 1500.000 .300 BREF 1290.300  
 3.300 .760 1500.000 .300 XREF 1052.000  
 2.720 .760 1500.000 .300 YREF 1740.000  
 SCALE 447.000



EFFECT OF SRB ON 0/ET CHRACT. (POSITION 3, PT/JET=1500)  
 (A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL002) C ISOLATED ORBIT  
 AEDC VA-422([A-57])  
 (RTL030) S OBS/ET VARIOUS SRB  
 AEDC VA-422([A-57])  
 (RTL061) S BOTH SRB

REFERENCE INFORMATION  
 SRB POS RNL PT-JET ALPHA SRBF 2650.3000 SQ.FT.  
 .300 .750 1500.000 .300 LREF 1250.3000  
 .300 .750 1500.000 .300 BREF 1520.3000  
 .300 .750 1500.000 .300 XREF 1520.3000  
 ZREF 447.3000  
 SCALE



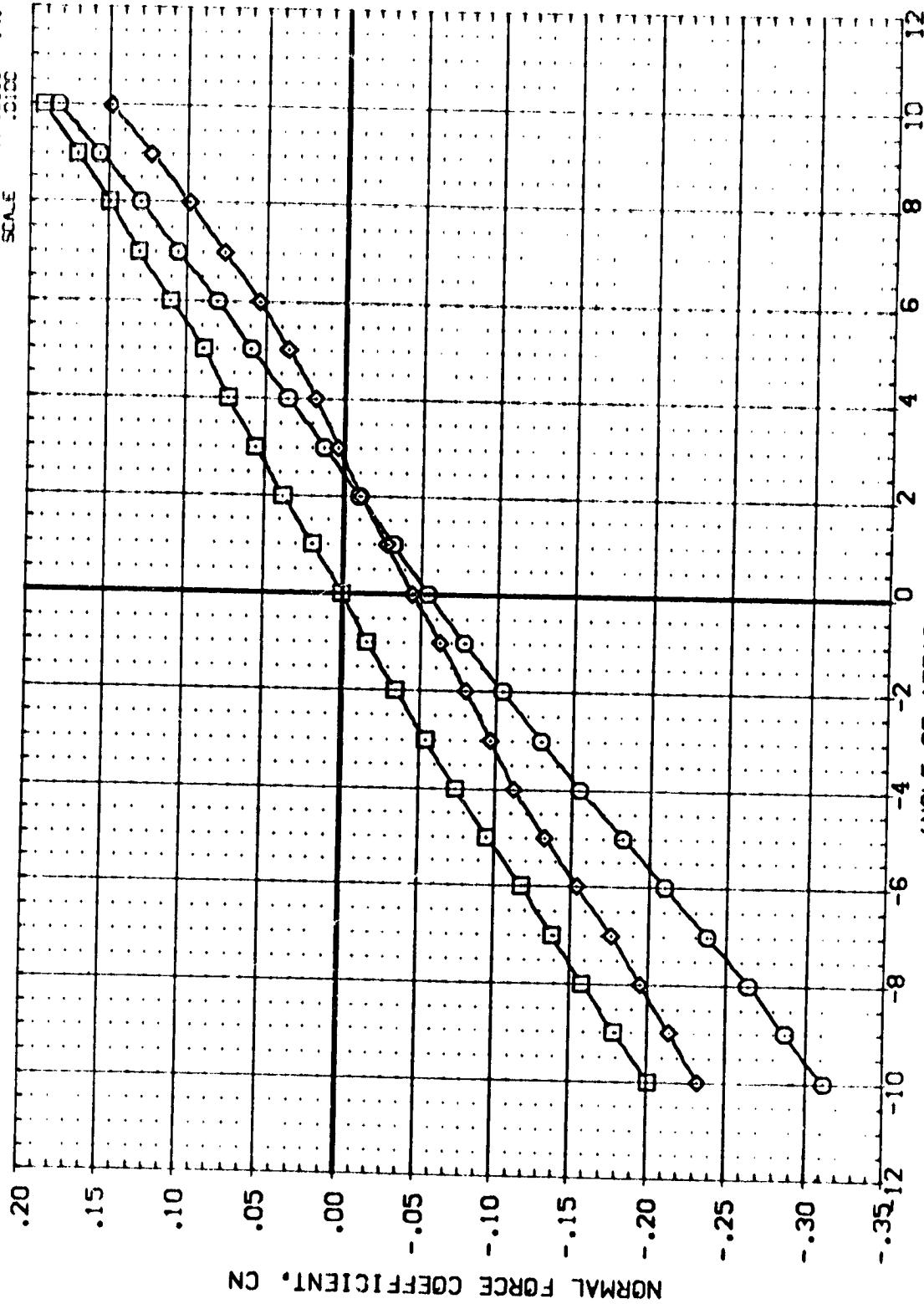
EFFECT OF SRB ON O/ET CHARACT. (POSITION 3, PT/JET=15000)

(A) MACH = 4.50

DATE : 24

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[RTLOO1]	AEDC VA-4221([A-57]) ISOLATED ORB/ET
[RT-L01]	AEDC VA-4222([A-57]) ORB/ET WRIGHT SRA
[RTLC36]	AEDC VA-4223([A-57]) ORB/ET V/BOTH SRA

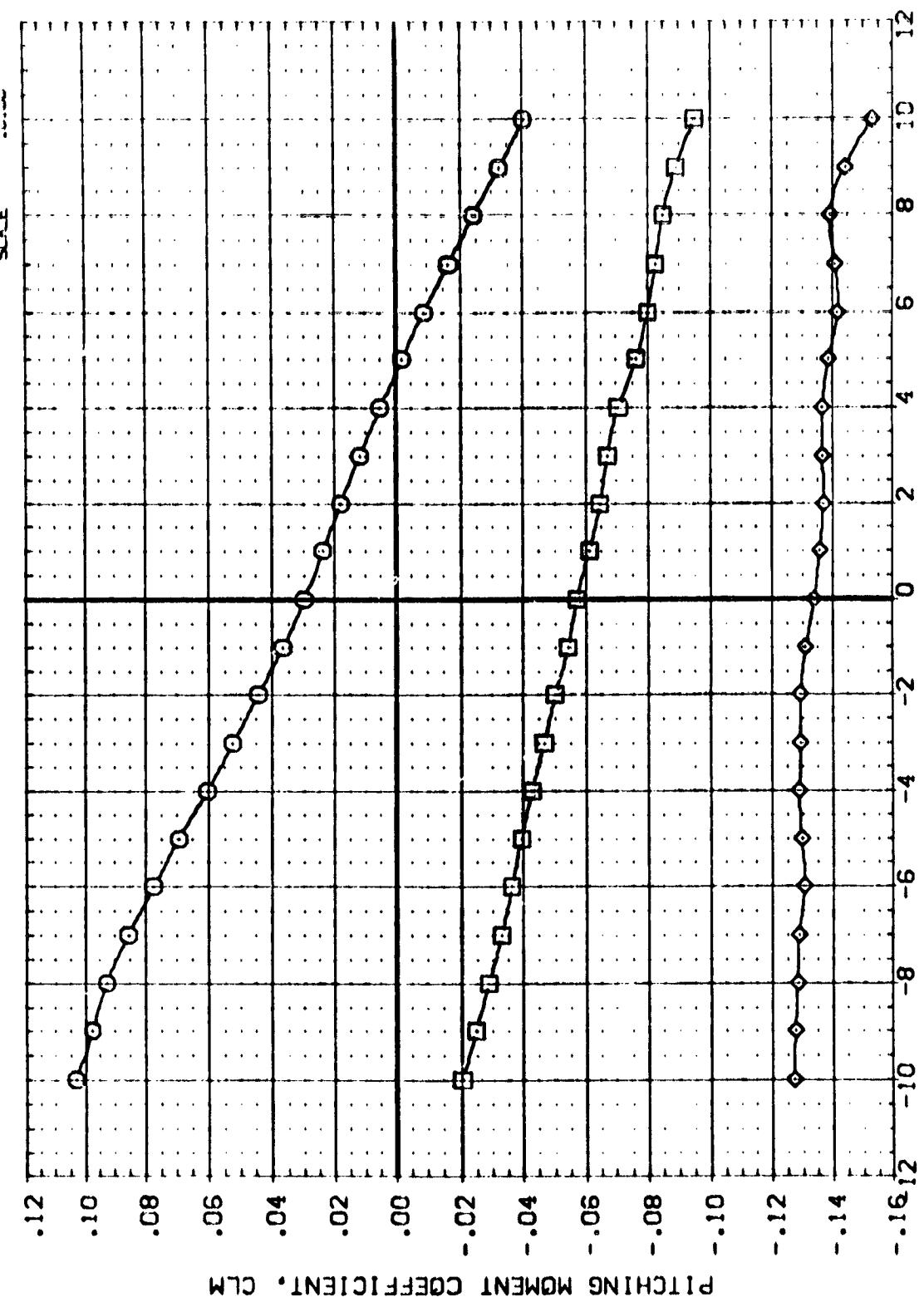
SRPPOS	RVAL	PT-JET	BETA	REFERENCE INFORMATION
1.100	1.760	750.000	.000	SREF 2680.000 SD. FT.
1.100	1.760	750.000	.200	LREF 1280.000
1.100	1.760	750.000	.400	3REF 1280.000
				X2P 1280.000
				Y2P 1280.000
				Z2P 1280.000
				447.000



EFFECT OF SRB ON Q/ET CHARACT. (POSITION 1. PT/JET=750)  
 $\alpha_{ATTACK} = 4.5^\circ$

$$C_{\text{ACM}} = 4.50$$

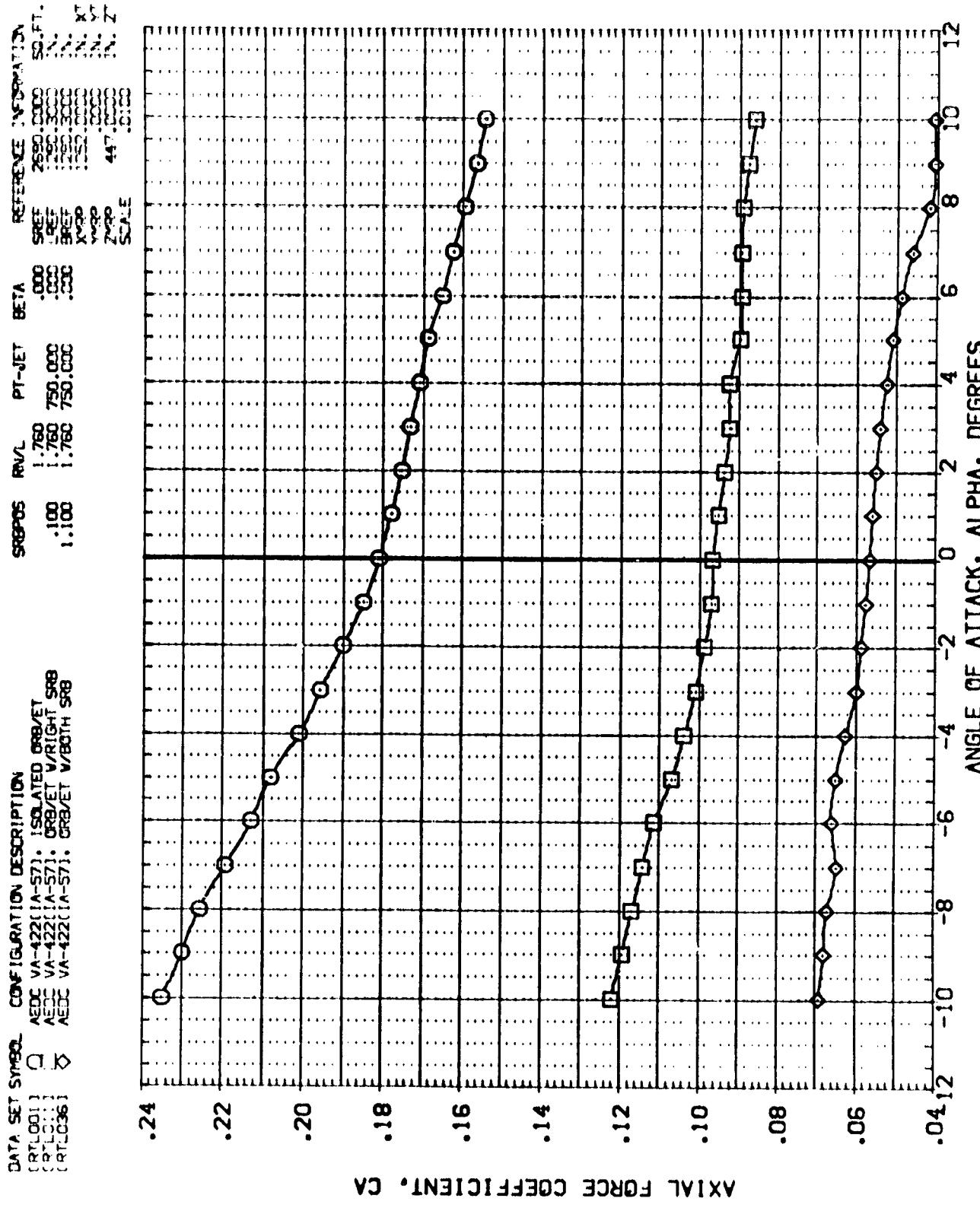
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL001) AEDC VA-422 [A-57] ISOLATED GRB/ET  
 (RTL001) AEDC VA-422 [A-57] GRB/ET W/RIGHT SRB  
 (RTL036) AEDC VA-422 [A-57] GRB/ET W/BOTH SRB



EFFECT OF SRB ON GRB/ET CHARACT. (POSITION 1, PI/JET=750)

(A)<sub>MACH</sub> = 4.50

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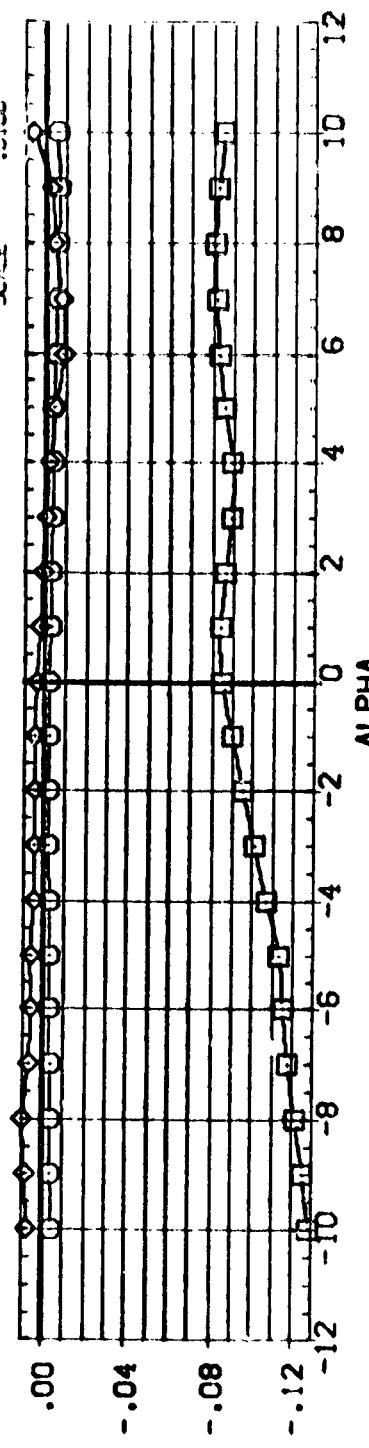


EFFECT OF SRB ON 0/ET CHARACT. (POSITION 1, PT/JET=750)  
(A)MACH = 4.50

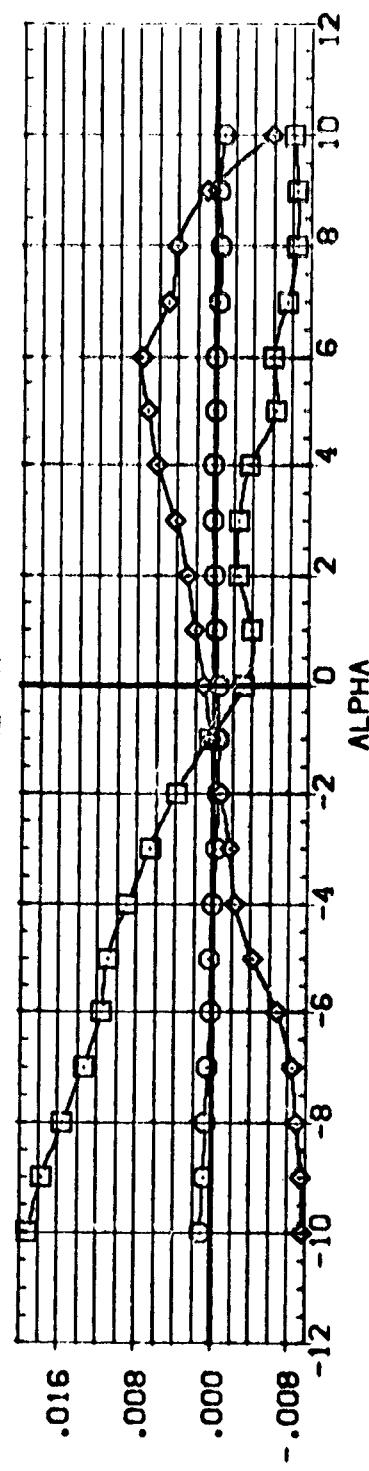
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DATA SET SUMMARY CONFIGURATION DESCRIPTION  
 (PTL001) AEDC VA-4221(A-571) ISOLATED SRB/ET  
 (PTL011) AEDC VA-4221(A-571) ORB/ET V/RIGHT SRB  
 (PTL036) AEDC VA-4221(A-571) ORB/ET V/BOTH SRB

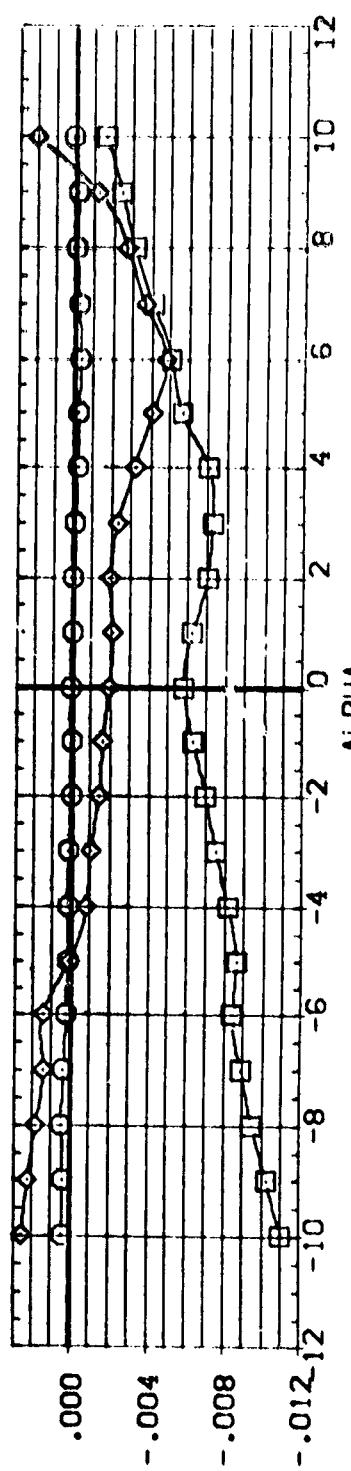
SRPOS RNL PT-JET BETA REFERENCE INFORMATION  
 .100 1.750 750.000 .000 SRREF 2500.000 SD.FT.  
 .100 1.750 750.000 .000 LREF 1500.000  
 .100 1.750 750.000 .000 SREF 1500.000  
 .100 1.750 750.000 .000 XRP 447.000  
 .100 1.750 750.000 .000 YRP 447.000  
 .100 1.750 750.000 .000 ZRP .010



C2



CYN

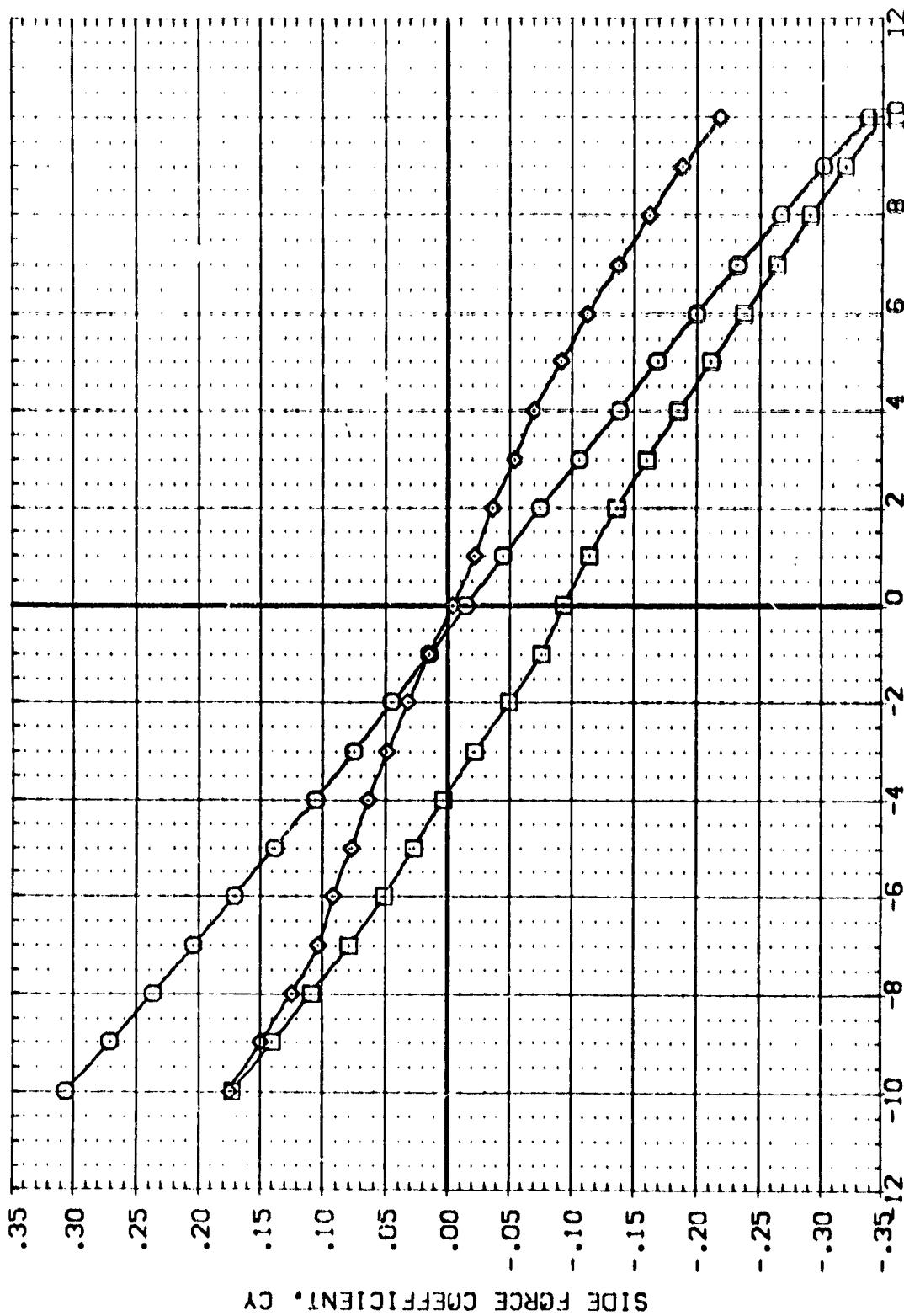


CBL

EFFECT OF SRB ON 0/ET CHARACT. (POSITION 1, PT/JET=750)  
 (A) MACH = 4.50

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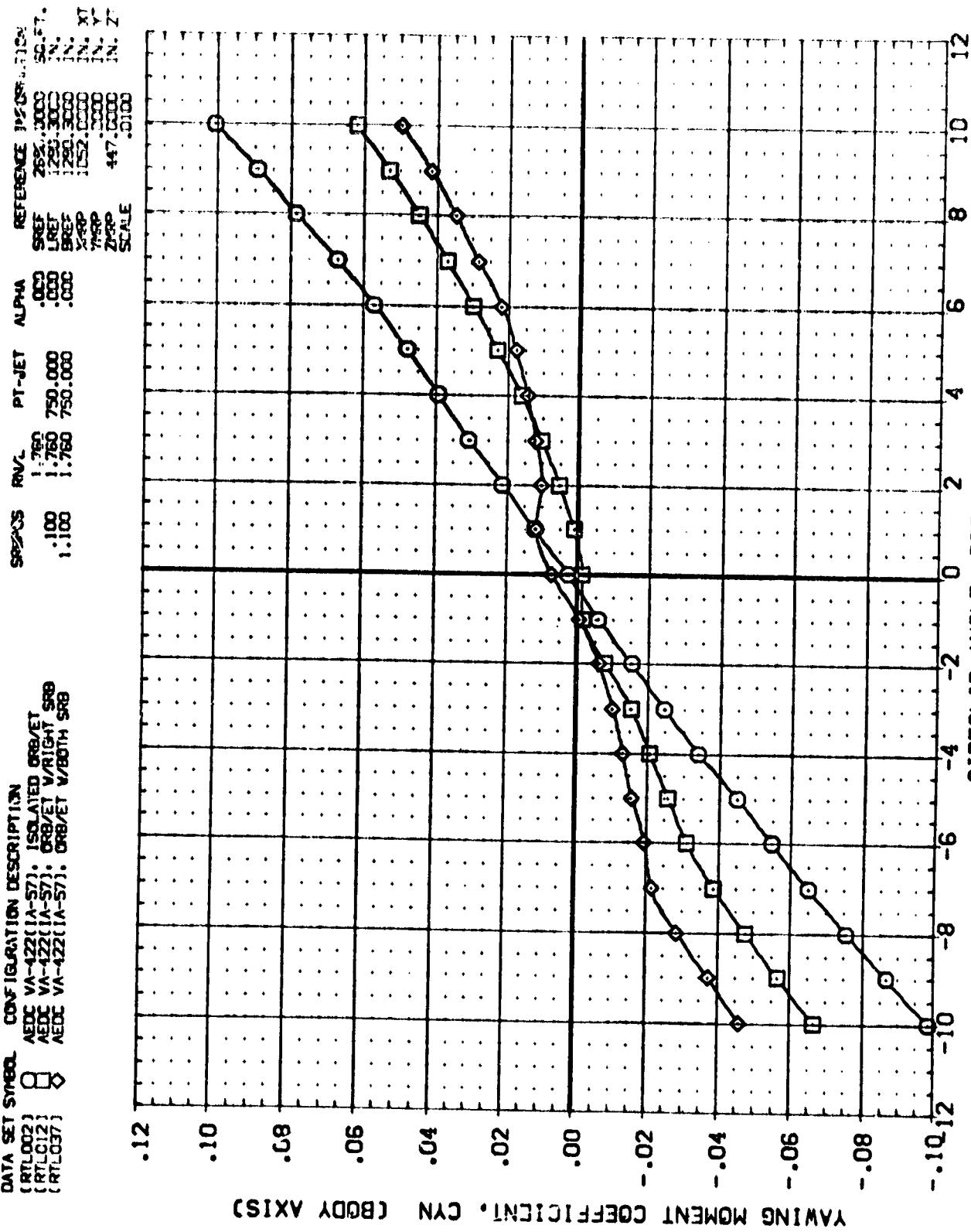
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [RT-002] AEDC VA-4222(A-57) ISOLATED SRB/JET  
 [RT-002] AEDC VA-4222(A-57) CR3/JET V/RIGHT SRB  
 [RT-002] AEDC VA-4222(A-57) CR3/JET V/BOTH SRB



EFFECT OF SRB ON 0/ET CHARACT. POSITION 1, PT/JET=750]  
 $C_{D,MACH} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

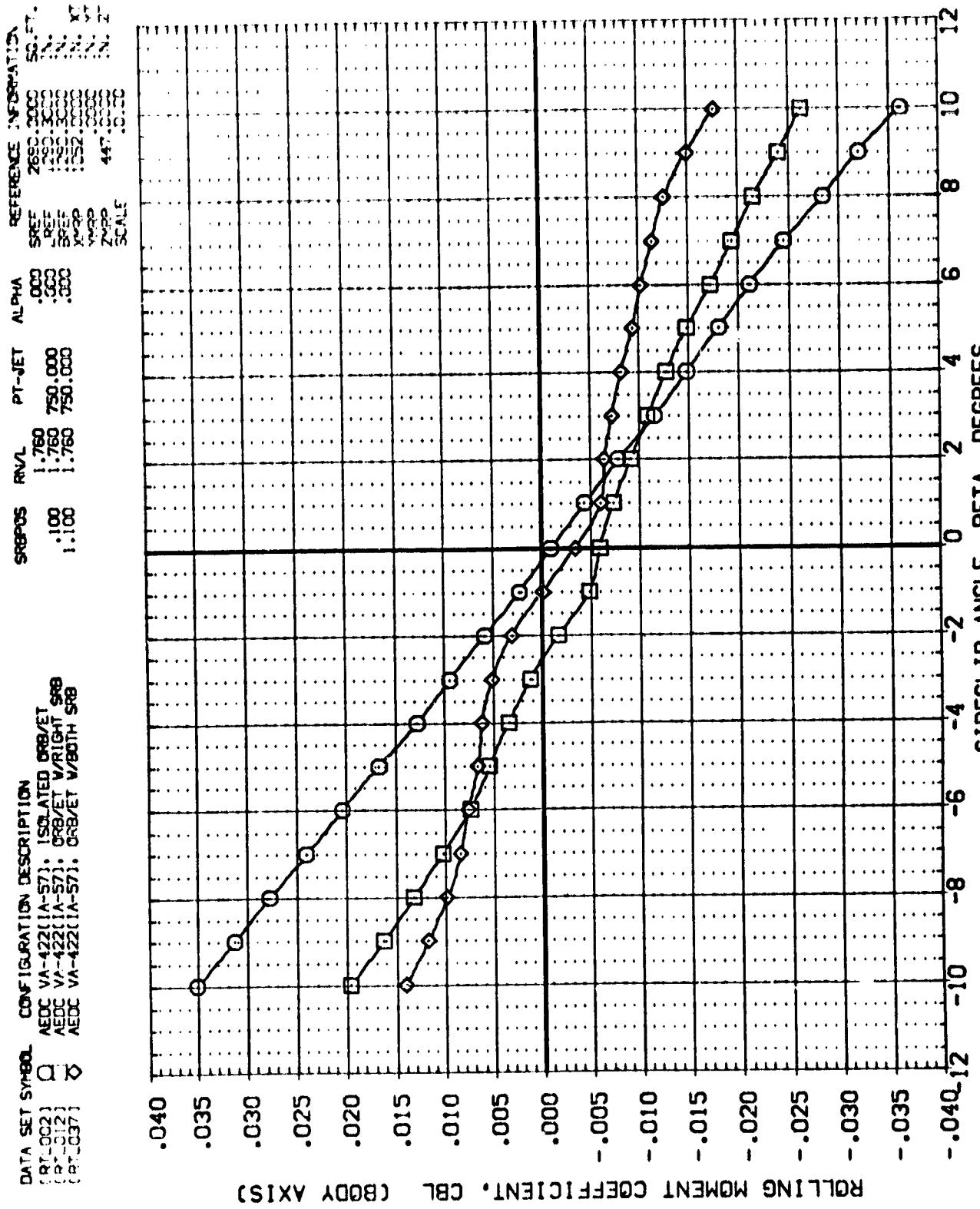
[RTLO2] AEDC VA-4221 (A-571). ISOLATED GRB/EET  
 [RTLO2] AEDC VA-4221 (A-571). GRB/EET V/RIGHT SRB  
 [RTLO3] AEDC VA-4221 (A-571). GRB/EET V/BOTH SRB



EFFECT OF SRB ON 0/ET CHARACT. (POSITION 1, PT/JET=750)

MACH = 4.50

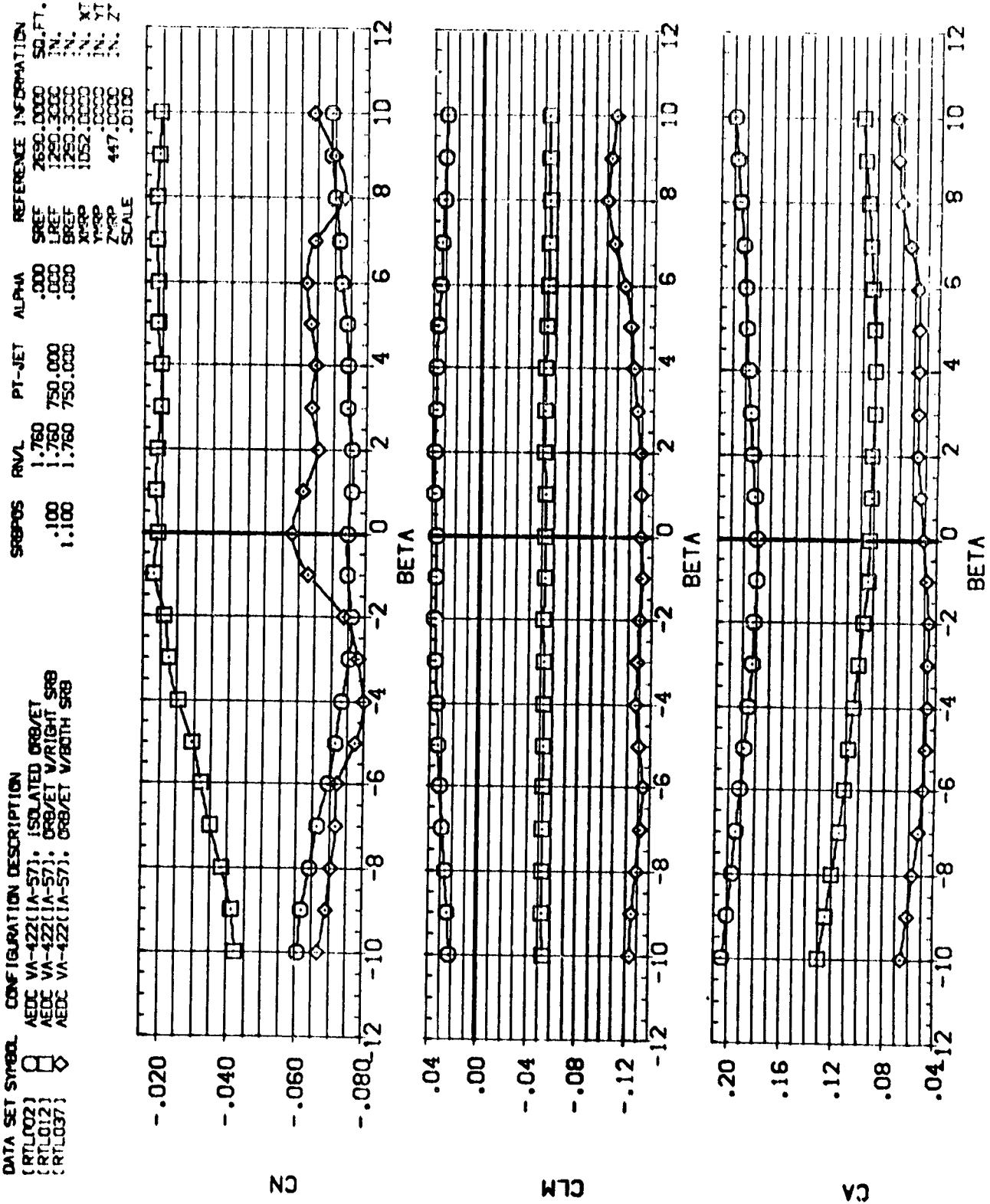
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RT-022) AEDC VA-422(IA-57), ISOLATED SRB/ET  
 (RT-032) AEDC VA-422(IA-57), CRB/ET V/RIGHT SRB  
 (RT-037) AEDC VA-422(IA-57), CRB/ET V/BOTH SRB



EFFECT OF SRB ON 0/ET CHARACT. (POSITION 1. PT/JET=750)  
 $C_{A,MACH} = 4.50$

PAGE :3:

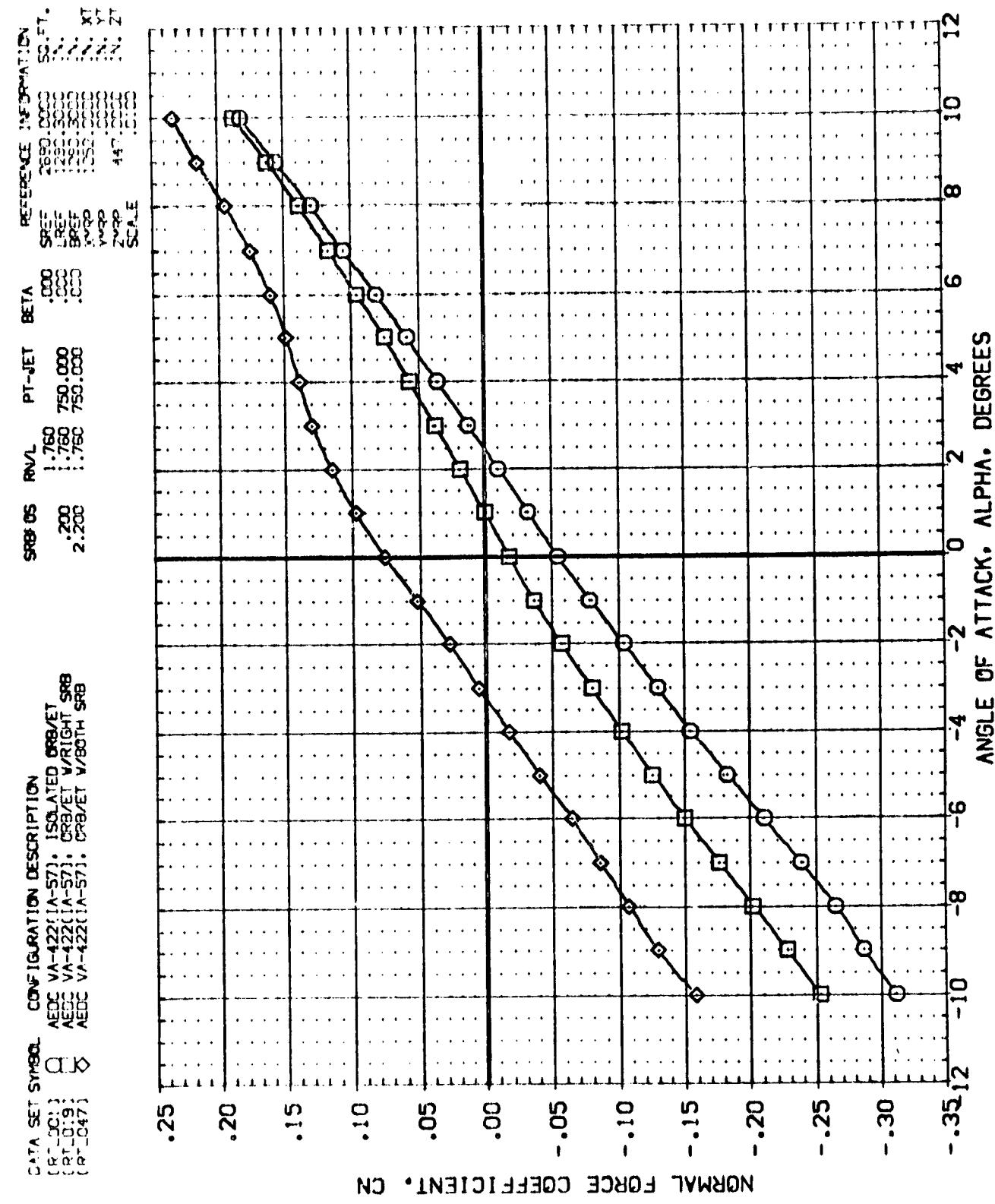
DATA SET SUMMARY CONFIGURATION DESCRIPTION  
 CRTL002 AEDC VA-422(I-A-57); ISOLATED O/E/ET  
 CRTL012 AEDC VA-422(I-A-57); O/E/ET V/BOTH SRB  
 CRTL037 AEDC VA-422(I-A-57); O/E/ET V/BOTH SRB



EFFECT OF SRB ON O/E/ET CHARACT. (POSITION 1, PT/JET=750)

(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R-3C1) AEDC VA-4221(A-57). ISOLATED ORBIT/ET  
 (R-3C9) AEDC VA-4221(A-57). CRB/ET VRIGHT SRB  
 (R-047) AEDC VA-4221(A-57). CRB/ET V/BOTH SRB

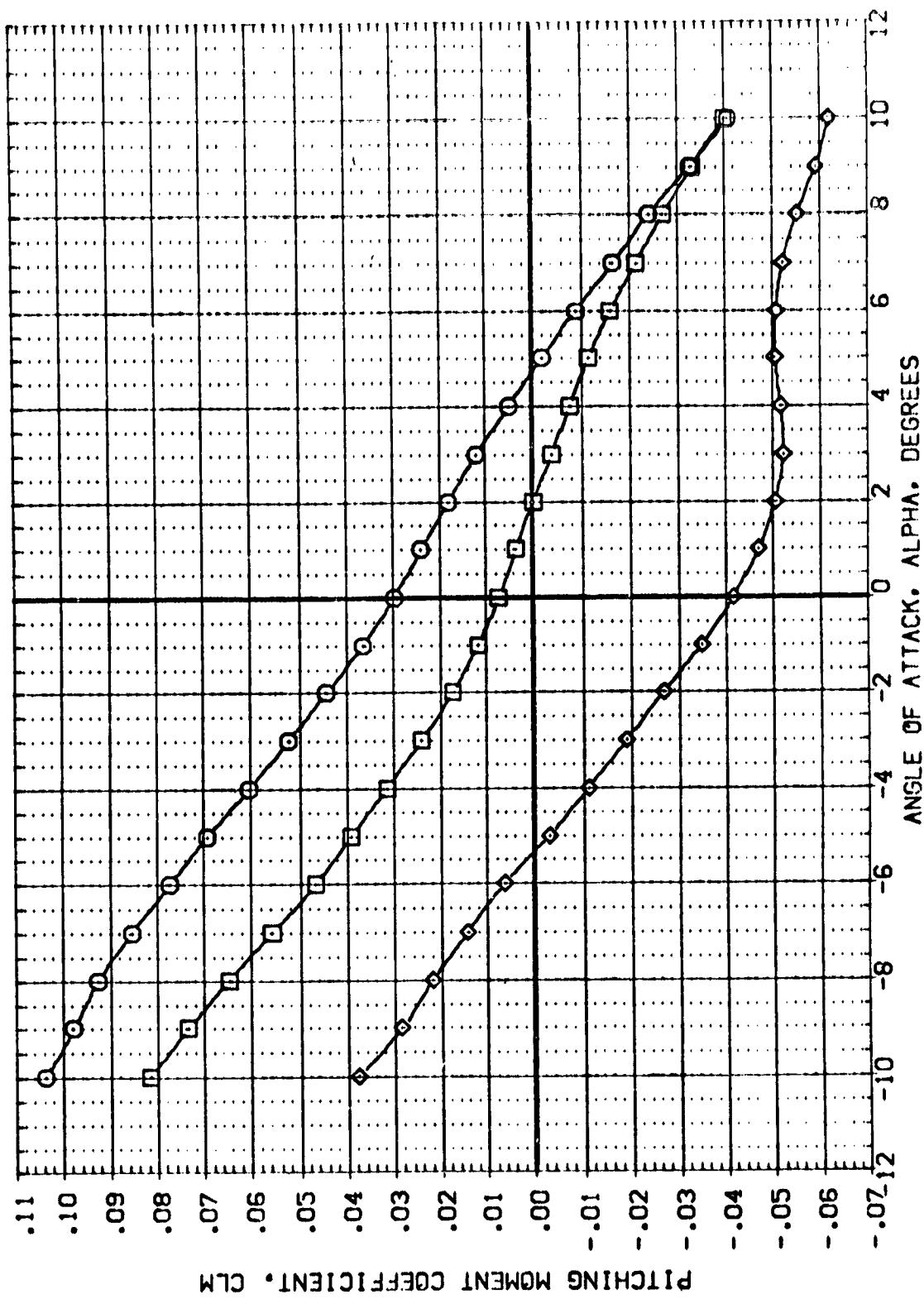


EFFECT OF SRB ON O/ET CHARACT. (POSITION 2, PT/JET=750)

(A)MACH = 4.50

DATA SET SOURCE CONFIGURATION DESCRIPTION  
 (RTL001) AEDC VA-422 (IA-57). ISOLATED SRB/ET  
 (RTL019) AEDC VA-422 (IA-57). SRB/ET V/RIGHT SRB  
 (RTL047) AEDC VA-422 (IA-57). SRB/ET V/BOTH SRB

SRBPOS	RN/L	PT-JET	BETA	REFERENCE INFORMATION
.200	1.760	750.000	.000	SREF 2690.000 SQ.FT.
.200	1.760	750.000	.000	LREF 1290.300
.200	1.760	750.000	.000	SREF 1290.300
.200	1.760	750.000	.000	XREF 1052.000
.200	1.760	750.000	.000	YREF 447.000
				ZREF .0160
				SCALE .0160

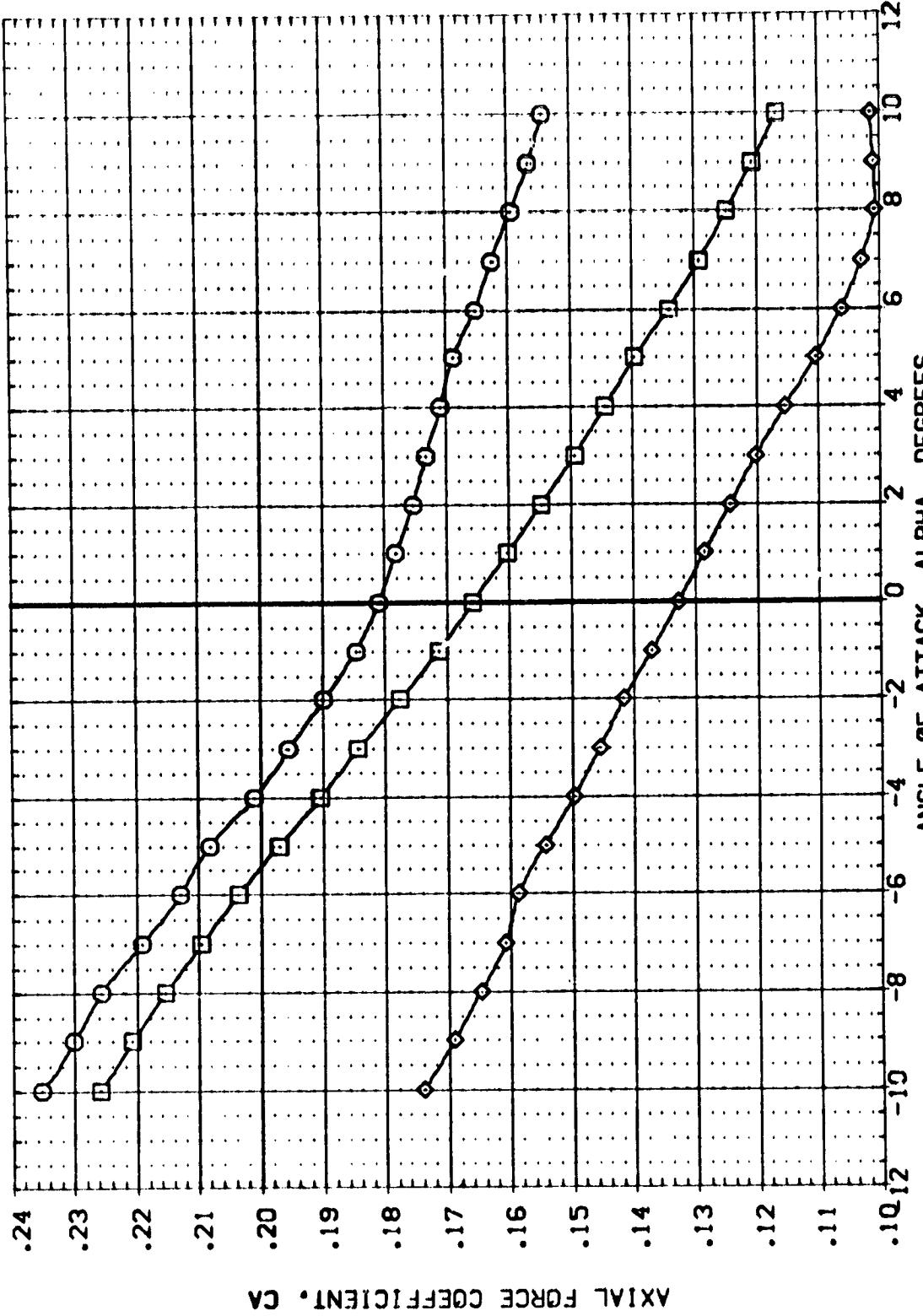


EFFECT OF SRB ON 0/ET CHARACT. (POSITION 2, PT/JET=750)

(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRT.0001 ISOLATED SRB  
 AEDC VA-4221(A-571)  
 CRT.019 CRB/ET V/RIGHT SRB  
 AEDC VA-4221(A-571)  
 CRT.047 CRB/ET V/BOTH SRB  
 AEDC VA-4221(A-571)

SRBPOS RVAL PT-JET BETA  
 .000 1.760 750.000 .000  
 2.200 1.760 750.000 .000  
 2.200 1.760 750.000 .000  
 XREF 1320.000000000000  
 YREF 1320.000000000000  
 ZREF 447.000000000000  
 SCALE 1.000000000000000

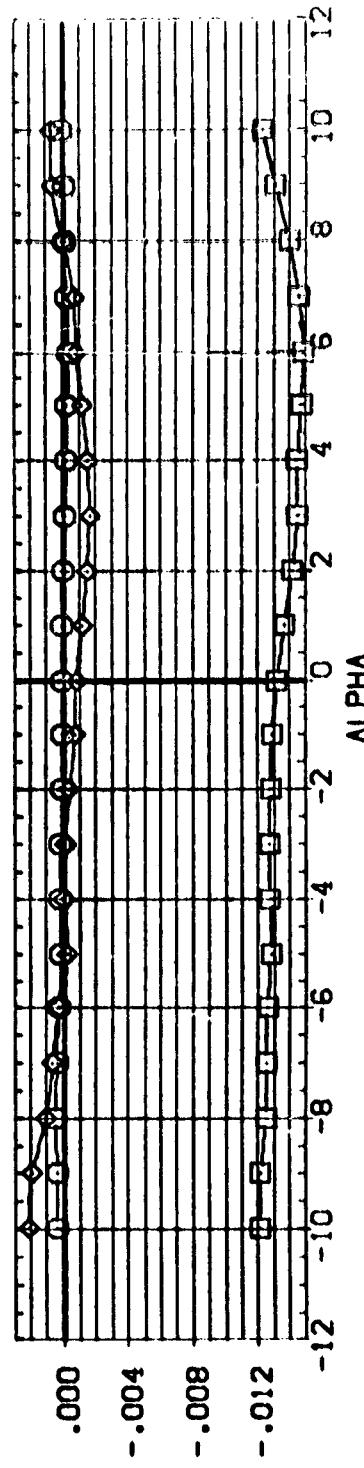
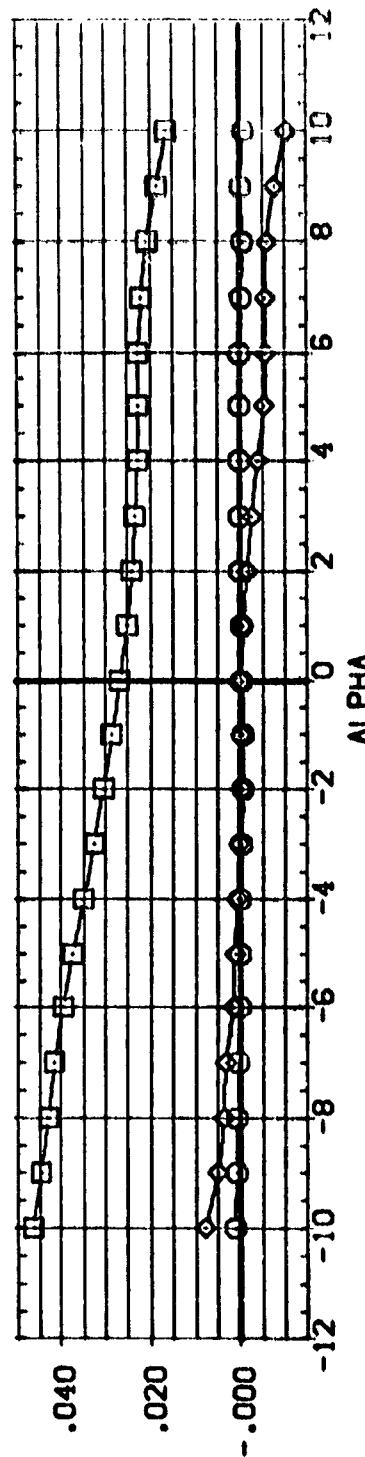
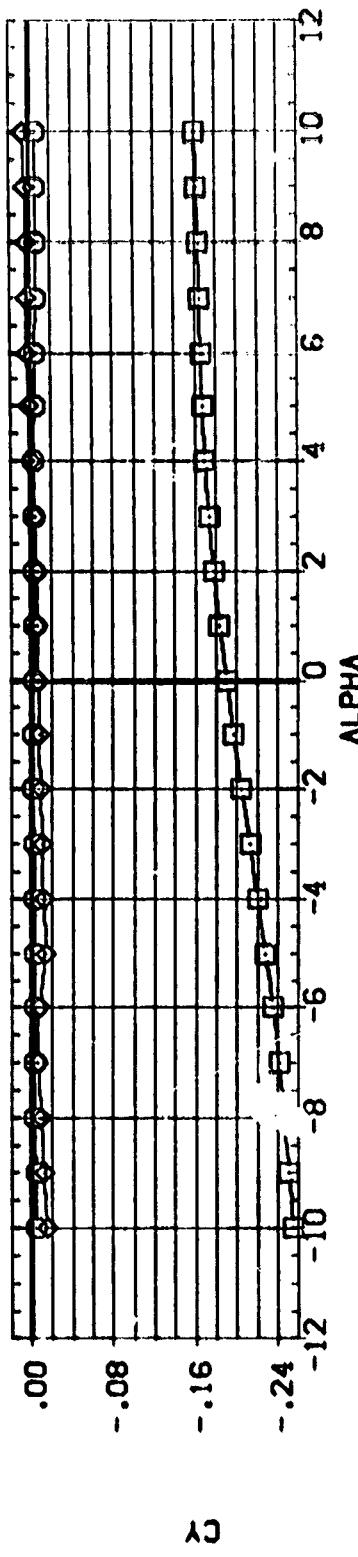


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EFFECT OF SRB ON 0/ET CHARACT. (POSITION 2, PT/JET=750)  
 (A) MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL001) AEDC VA-422(IA-57). ISOLATED OBJECT  
 (RTL019) AEDC VA-422(IA-57). DR/ET V/RIGHT SRB  
 (RTL047) AEDC VA-422(IA-57). DR/ET V/BOTH SRB

SRPOS RNL PT-JET BETA  
 2:200 1:750 750.000 .000  
 2:200 1:750 750.000 .000  
 REFERENCE INFORMATION  
 LREF .000 2650.000 SD.FT.  
 BREF 1250.3000 N.  
 XREF 1052.0000 N.  
 YREF 447.0000 N.  
 ZREF .0000 N.  
 SCALE .0100 ZT



EFFECT OF SRB ON O/ET CHARACT. (POSITION 2, PT/JET=750)  
 (A)MACH = 4.50

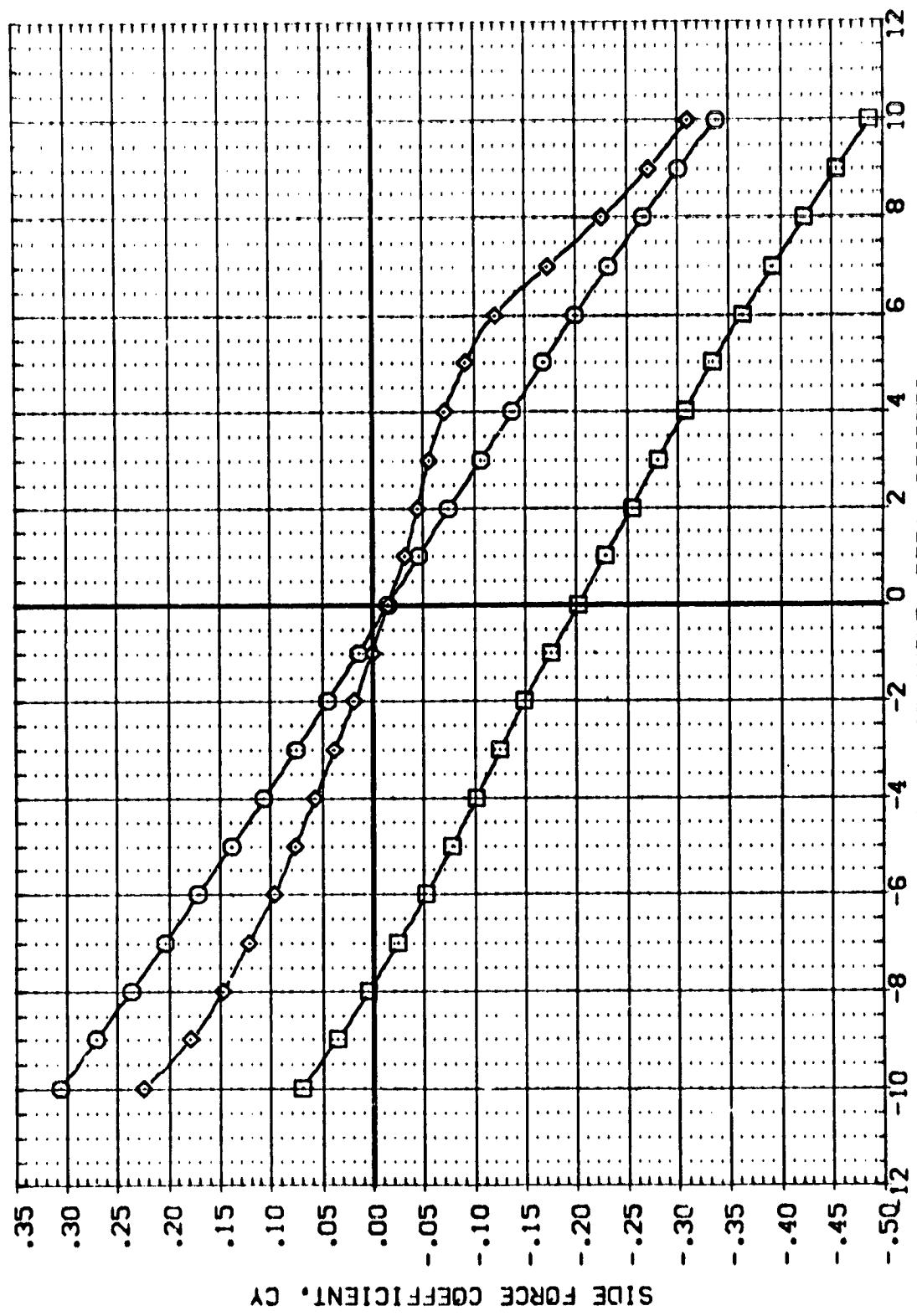
PAGE : 35

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CRTL002)	AEDC VA-422[(A-57)]	ISOLATED SRB/JET
(CRTL022)	AEDC VA-422[(A-57)]	CRB/ET V/RIGHT SRB
(CRTL038)	AEDC VA-422[(A-57)]	CRB/ET V/BOTH SRB

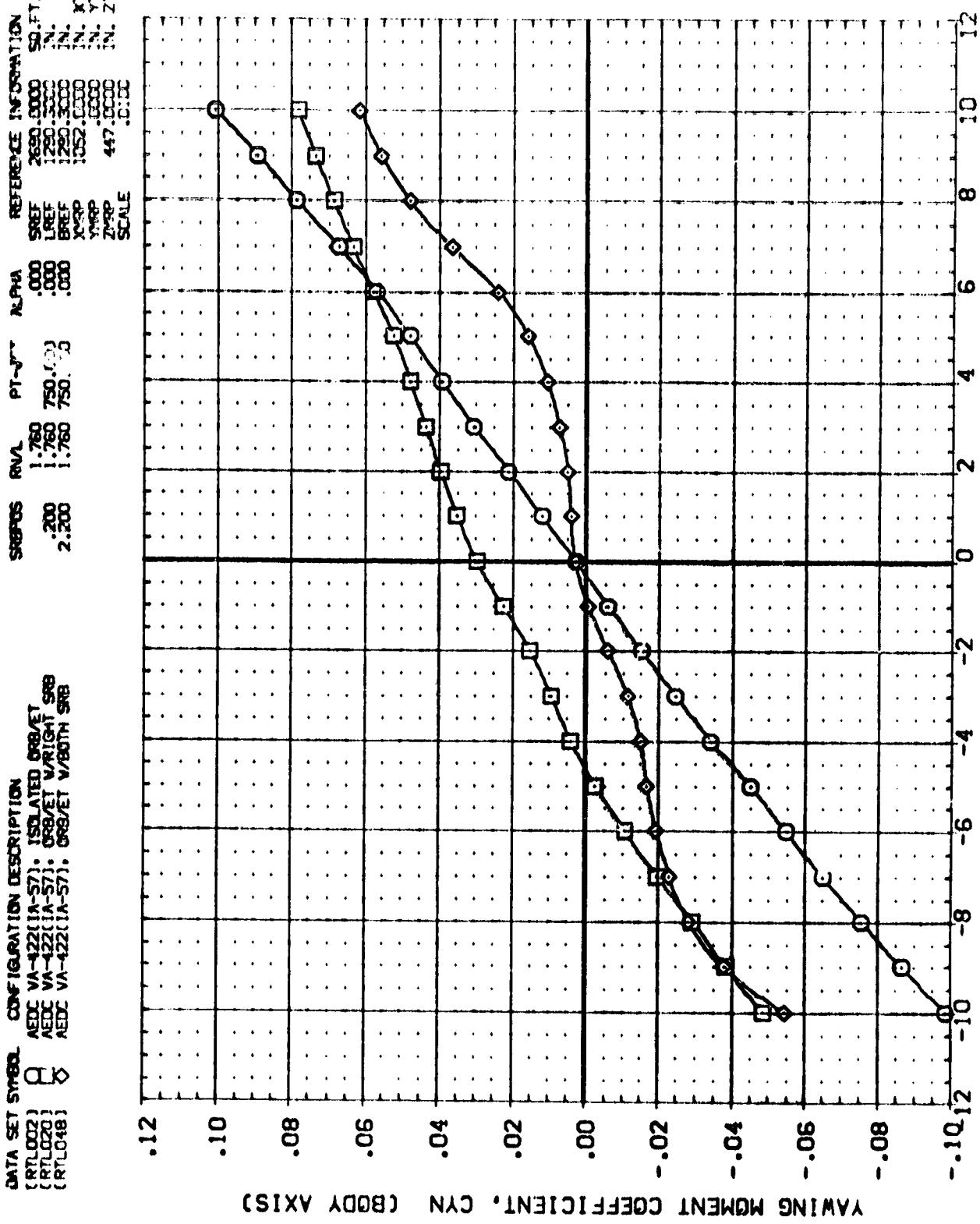
REFERENCE INFORMATION

SREF	2890.0000	SQ.FT.
XREF	.280	IN.
YREF	.280	IN.
ZREF	.052	IN.
X <sub>DP</sub>	.000	IN.
Y <sub>DP</sub>	.000	IN.
Z <sub>DP</sub>	4.7	IN.
SCALE	.100	



EFFECT OF SRB ON O/ET CHARACTER. (POSITION 2, PT/JET=750)  
(AJMACH = 4.50)

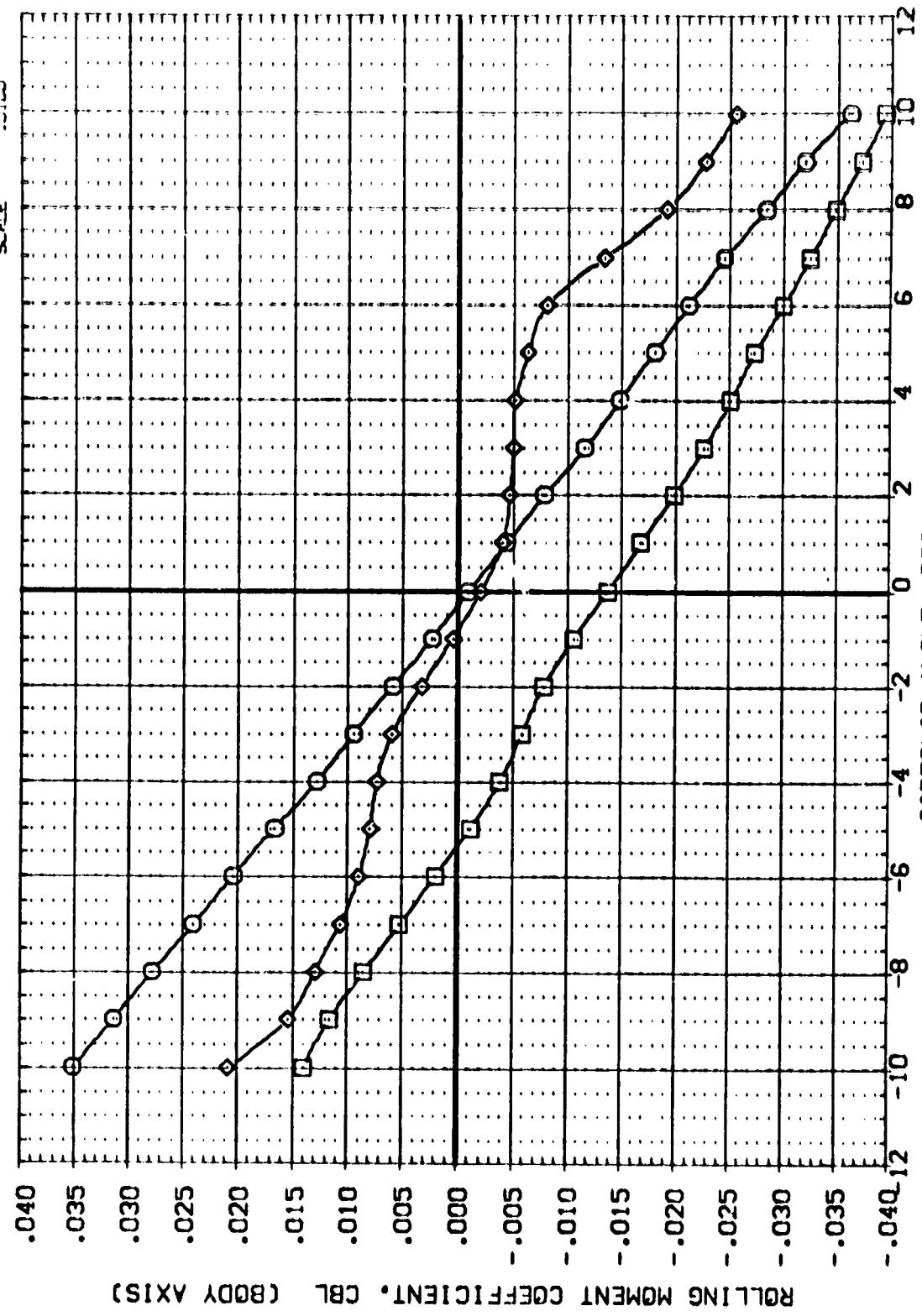
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL002) A AEDC VA-422(IA-57); ISOLATED SRB/ET  
 (RTL020) B AEDC VA-422(IA-57); GRB/ET W/RIGHT SRB  
 (RTL048) C AEDC VA-422(IA-57); GRB/ET W/BOTH SRB



EFFECT OF SRB ON 0/ET CHARACT. (POSITION 2, PT/JET=750)  
 $C_{AJMACH} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRTLOC21 AEDC VA-422([A-57]), ISOLATED ORBIT/JET  
 CRTLOC22 AEDC VA-422([A-57]), COBJET/WRIGHT SRB  
 CRTLOC48 AEDC VA-422([A-57]), COBJET W/BOTH SRB

SRBPOS RNL PT-JET ALPHA REFERENCE INTEGRATION  
 2.200 1.760 .000 SREF 269.000 SC.FT.  
 2.200 1.750 750.000 .000 LREF 129.300 SC.FT.  
 2.200 1.750 750.000 .000 BREF 129.300 SC.FT.  
 2.200 1.750 750.000 .000 XREF 152.000 SC.FT.  
 2.200 1.750 750.000 .000 YREF 447.518 SC.FT.  
 2.200 1.750 750.000 .000 ZREF 518.000 SC.FT.

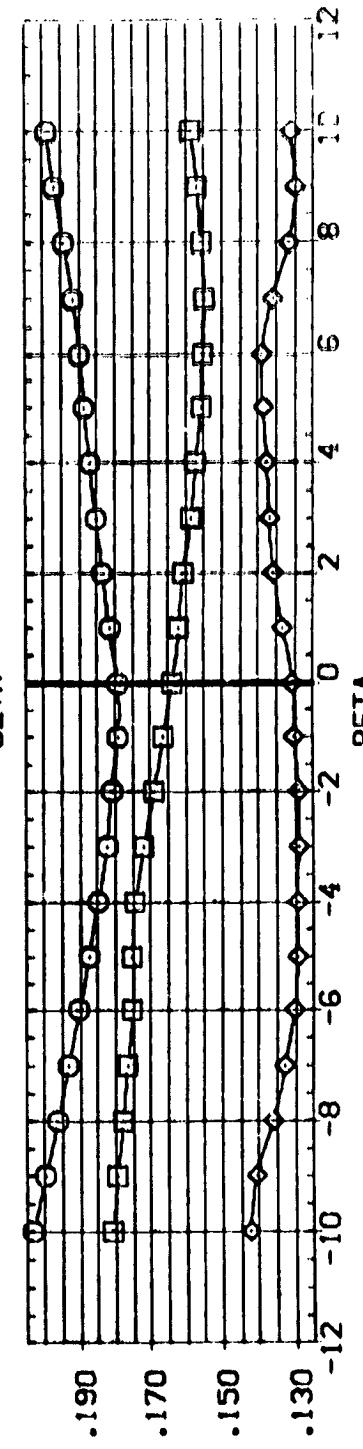
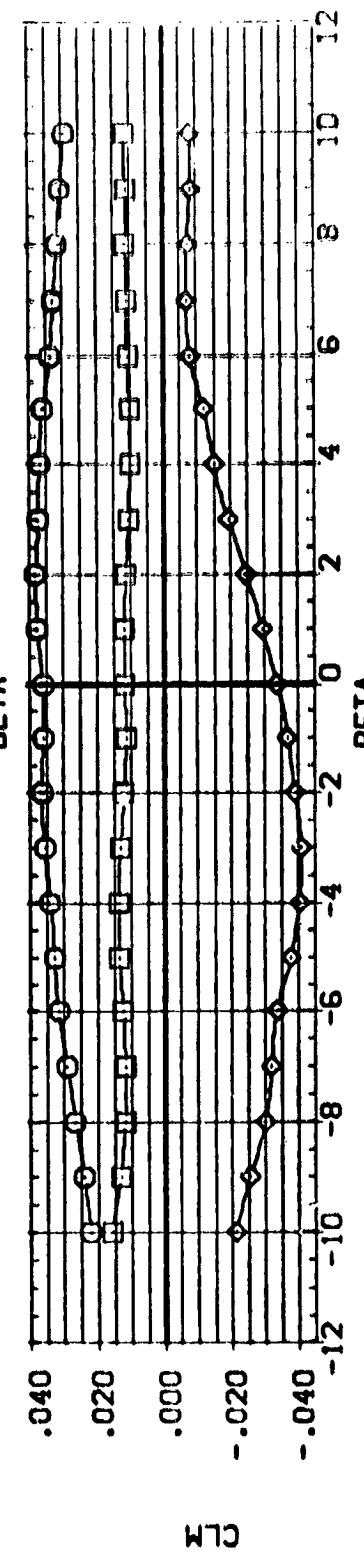
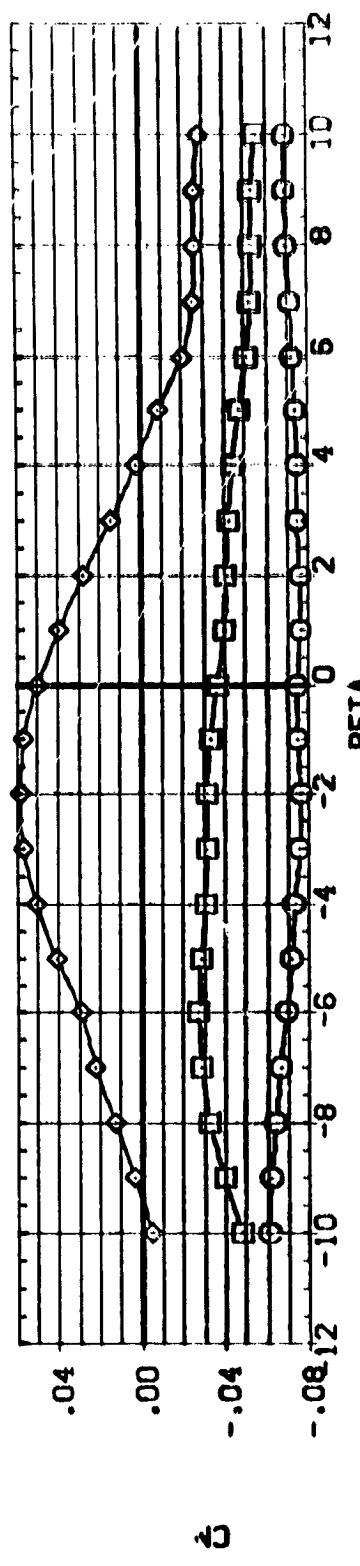


EFFECT OF SRB ON CBL CHARACTER. (POSITION 2, PT/JET=750)

(A)MACH = 4.50

DATA SET SPEED CONFIGURATION DESCRIPTION  
 AFDC VA-422(A-57). ISOLATED OBSTET  
 AFDC VA-422(A-57). OBSTET W/RIGHT SRB  
 AFDC VA-422(A-57). OBSTET W/BOTH SRB

SRBOTS RNL PT-JET ALFA<sub>0</sub> EXTREME INTEGRATION  
 2.200 1.760 750.000 3000 SHT  
 2.200 1.760 750.000 3000 EFT  
 2.200 1.760 750.000 3000 AFT  
 2.200 1.760 750.000 3000 TSHP  
 2.200 1.760 750.000 3000 SCLE

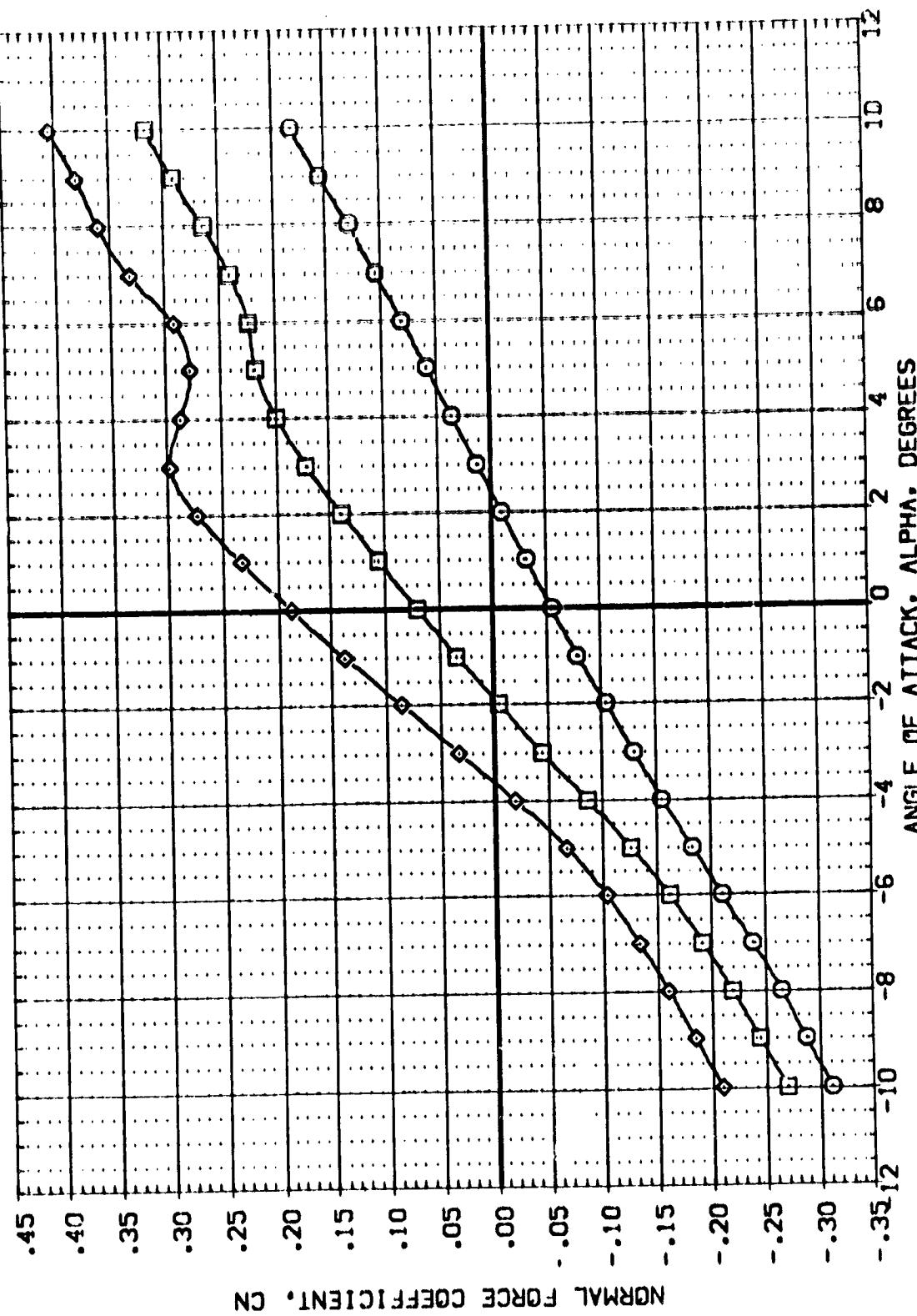


EFFECT OF SRB ON 0/ET CHARACT. (POSITION 2, PT/JET=750)  
 $(\Delta) MACH = 4.50$

P122 140

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RTT-001)	AEDC VA-4221(A-571) ISOLATED OR
(RTT-027)	AEDC VA-4221(A-571) DB/ET VARIOUS
(RTT-058)	AEDC VA-4221(A-571) DB/ET VARIOUS



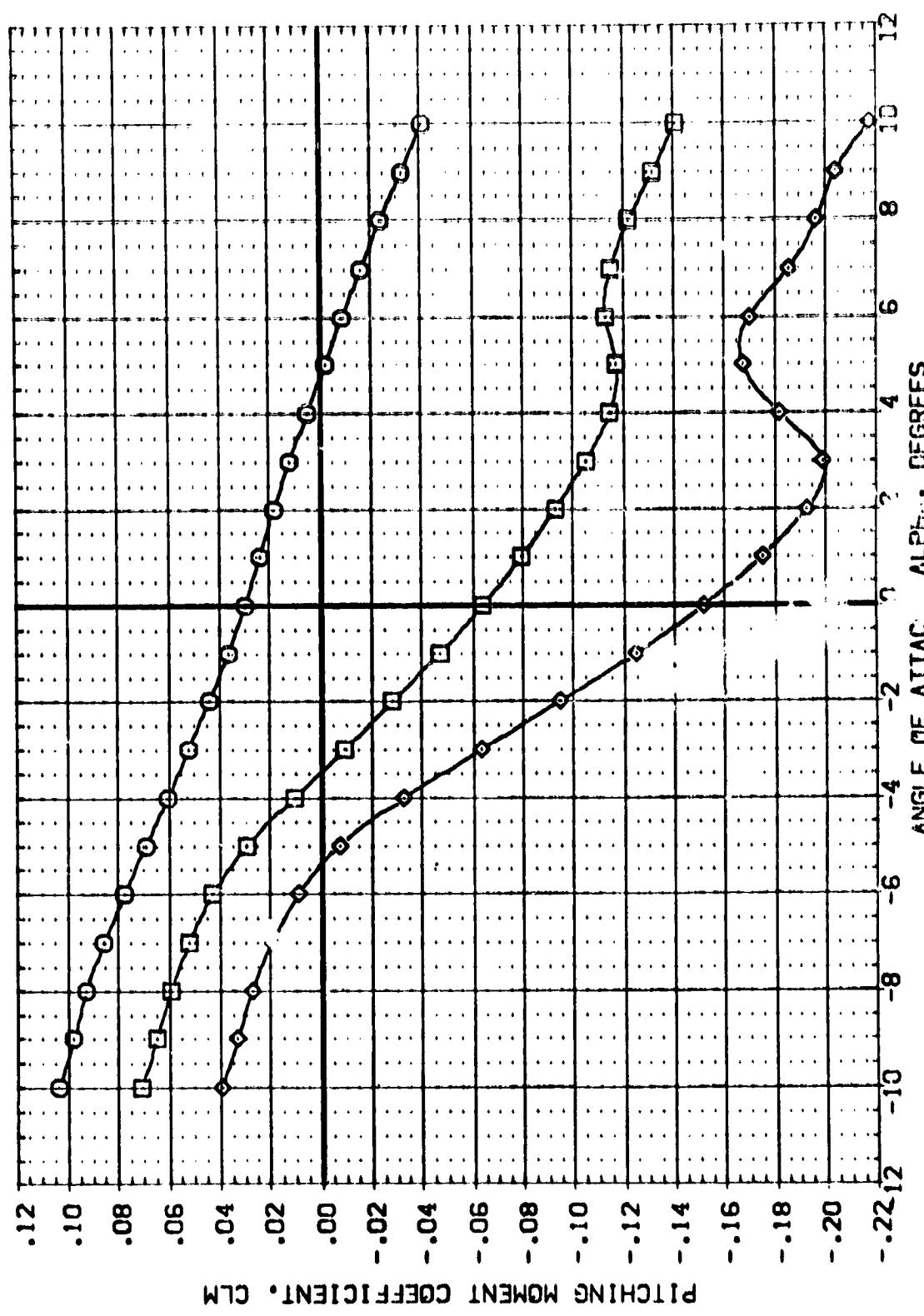
EFFECT ONE 988 ON MET CHARACT. (POSITION 3, PT/JET=750)

$$(\Delta)MACH = 4.50$$

## DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL001) AEDC VA-422(IA-57); ISOLATED O/R/ET  
 (RTL027) AEDC VA-422(IA-57); O/R/ET VARIOUS SRB  
 (RTL058) AEDC VA-422(IA-57); O/R/ET VARIOUS SRB

STEP POS RNL PT-JET BETA .000 SREF 2650.000 SQ.FT.  
 3.300 1.750 750.000 .300 LREF 1250.300  
 3.300 1.750 750.000 .300 SREF 1250.300  
 3.300 1.750 750.000 .300 TREF 1250.300  
 3.300 1.750 750.000 .300 ZREF 447.000  
 SCALE .318

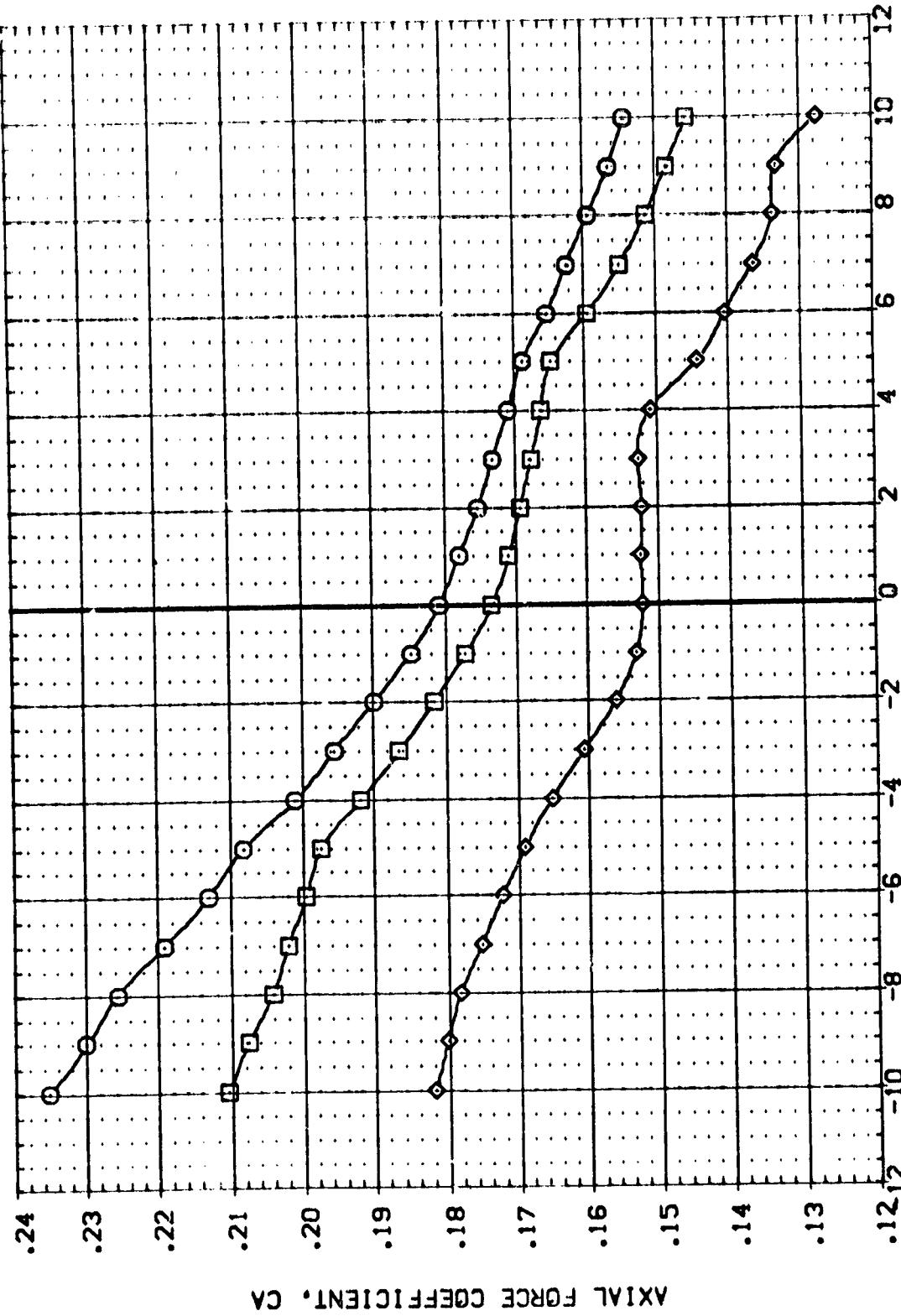


EFFECT OF SRB ON O/ET CHARACT. (POSITION 1. PT/JET=750)  
 $C_{A,MACH} = 4.50$

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL001) AEDC VA-4221(A-57) ISOLATED ORB/ET  
 (RTL027) AEDC VA-4221(A-57) GRB/ET V/RIGHT SRB  
 (RTL058) AEDC VA-4221(A-57) GRB/ET V/BOTH SRB

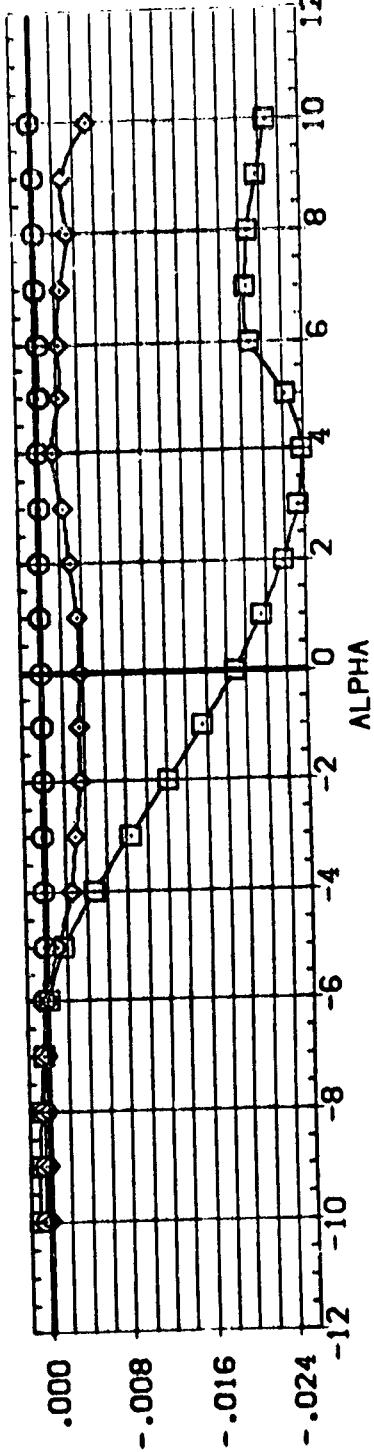
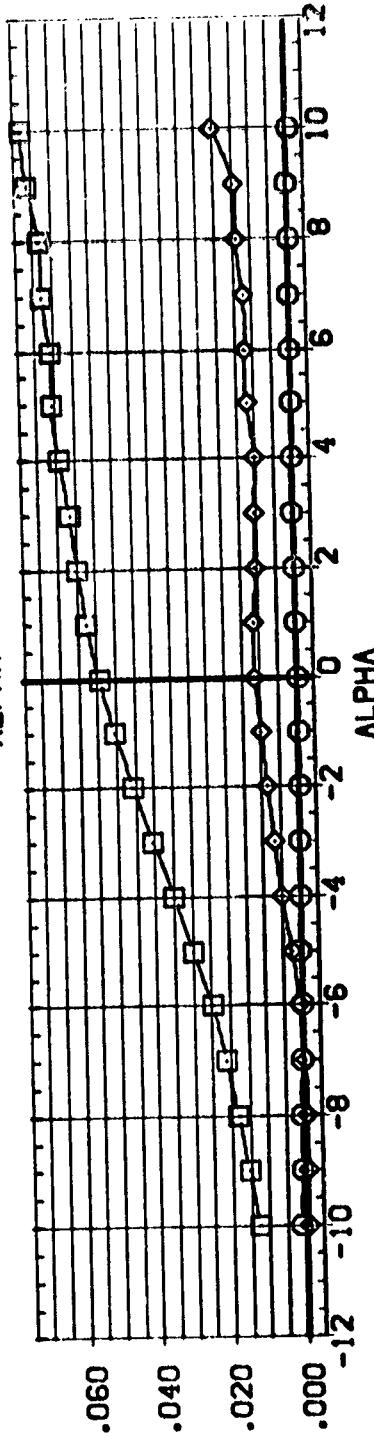
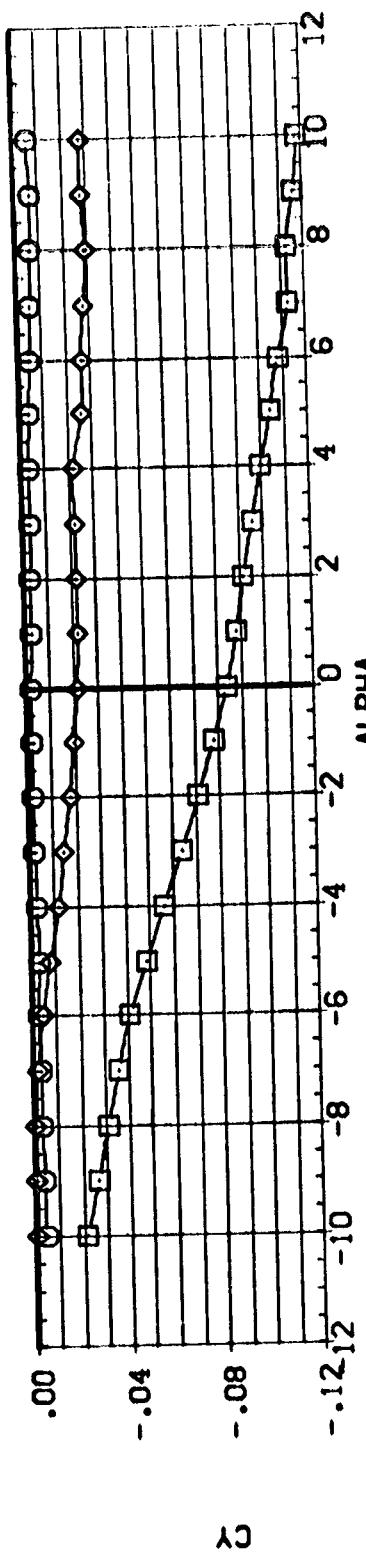
REFERENCE INFORMATION  
 STEPPOS RNL PT-JET BETA  
 3.000 1.760 750.000 .000  
 3.300 1.760 750.000 .000  
 ZNP 447.000 .000  
 SCALE .010



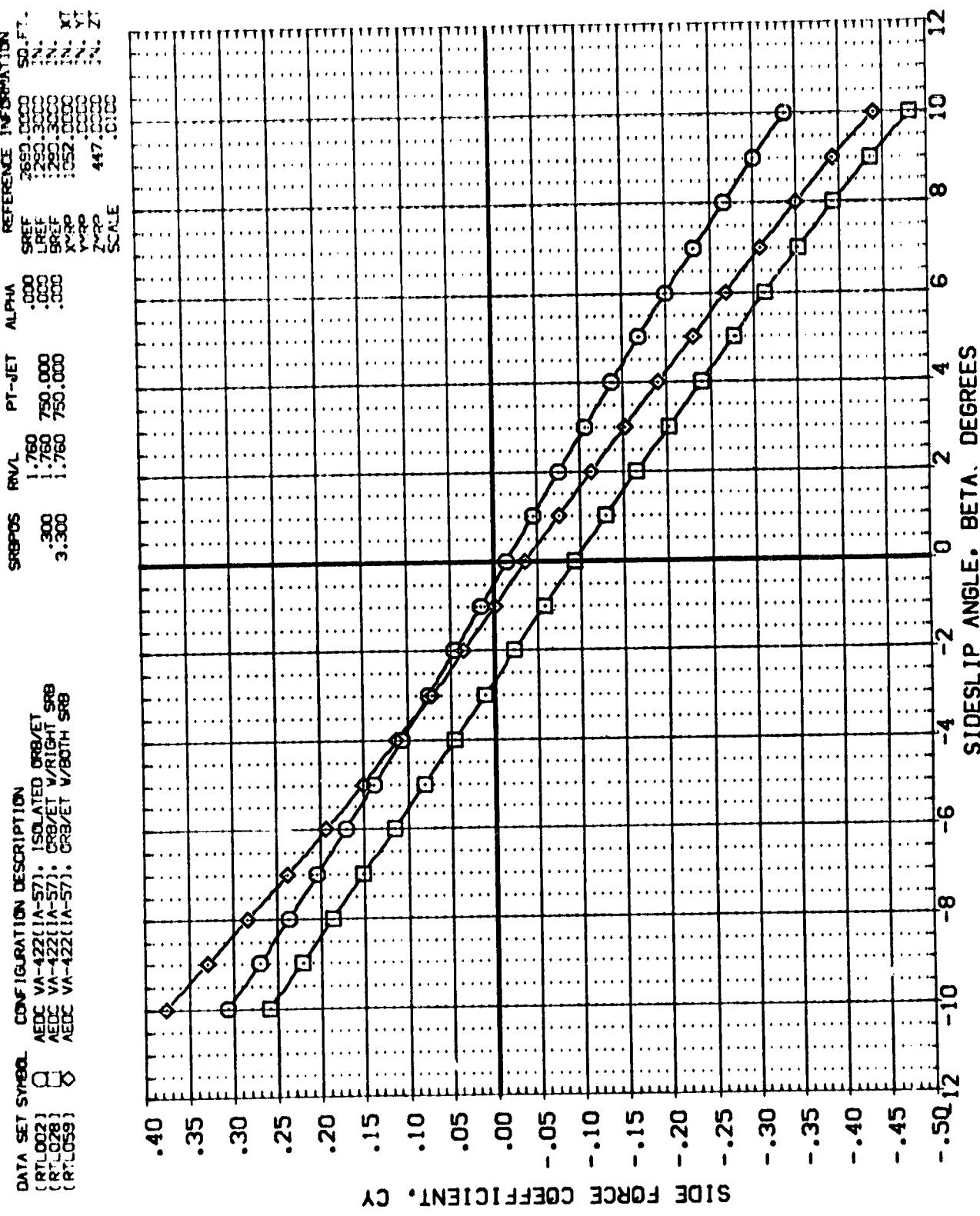
EFFECT OF SRB ON 0/ET CHARACT. (POSITION 3, PT/JET=750)  
 (A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [RTLO01] AEDC VA-422(IA-57). ISOLATED SRB/ET  
 [RTLO27] AEDC VA-422(IA-57). CRB/ET V/RIGHT SRB  
 [RTLO58] AEDC VA-422(IA-57). CRB/ET V/BOTH SRB

REFERENCE INFORMATION  
 SREF 2650.0000 SD.FT.  
 LREF 1250.3000 IN.  
 EREF 1250.3000 IN.  
 XREF 1052.0000 IN. X  
 YREF 447.0000 IN. Y  
 ZREF .0000 IN. Z  
 SCALE .3000



EFFECT OF SRB ON 0/ET CHARACT. (POSITION 3, PT/JET=750)  
 $(\Delta)MACH = 4.50$

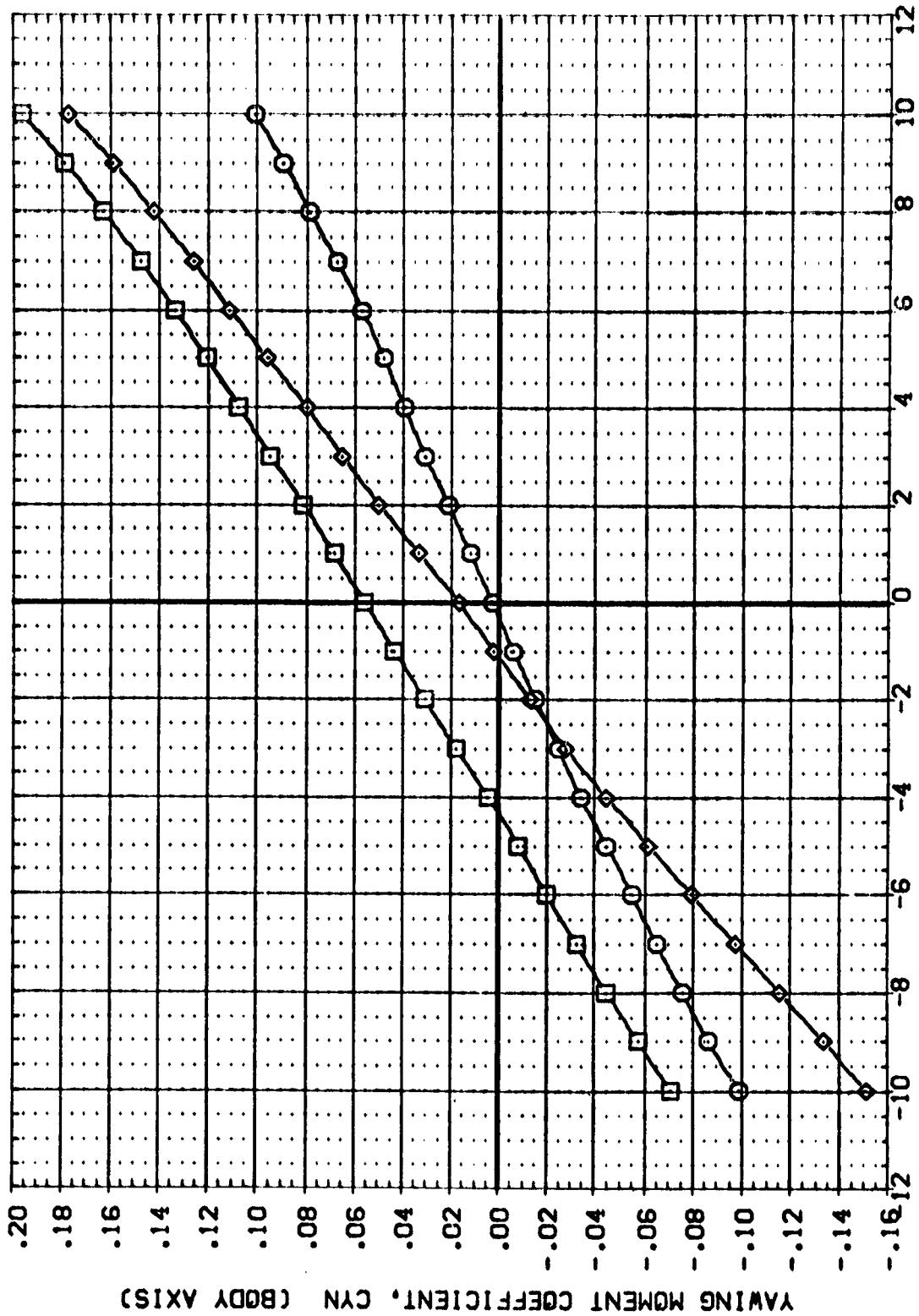


EFFECT OF SRB ON 0/ET CHARACT. (POSITION 3, PT/JET=750)

(A)<sub>MACH</sub> = 4.50

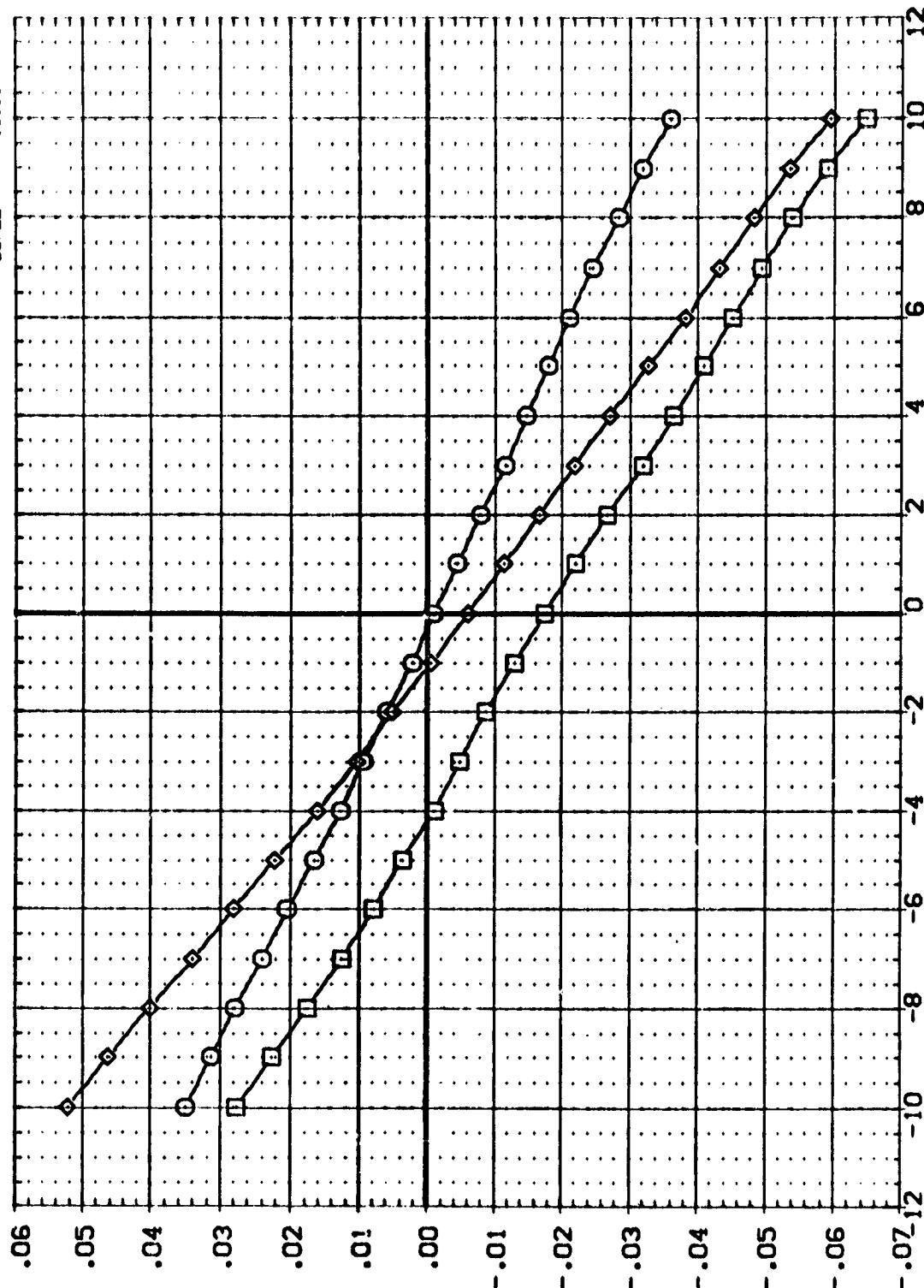
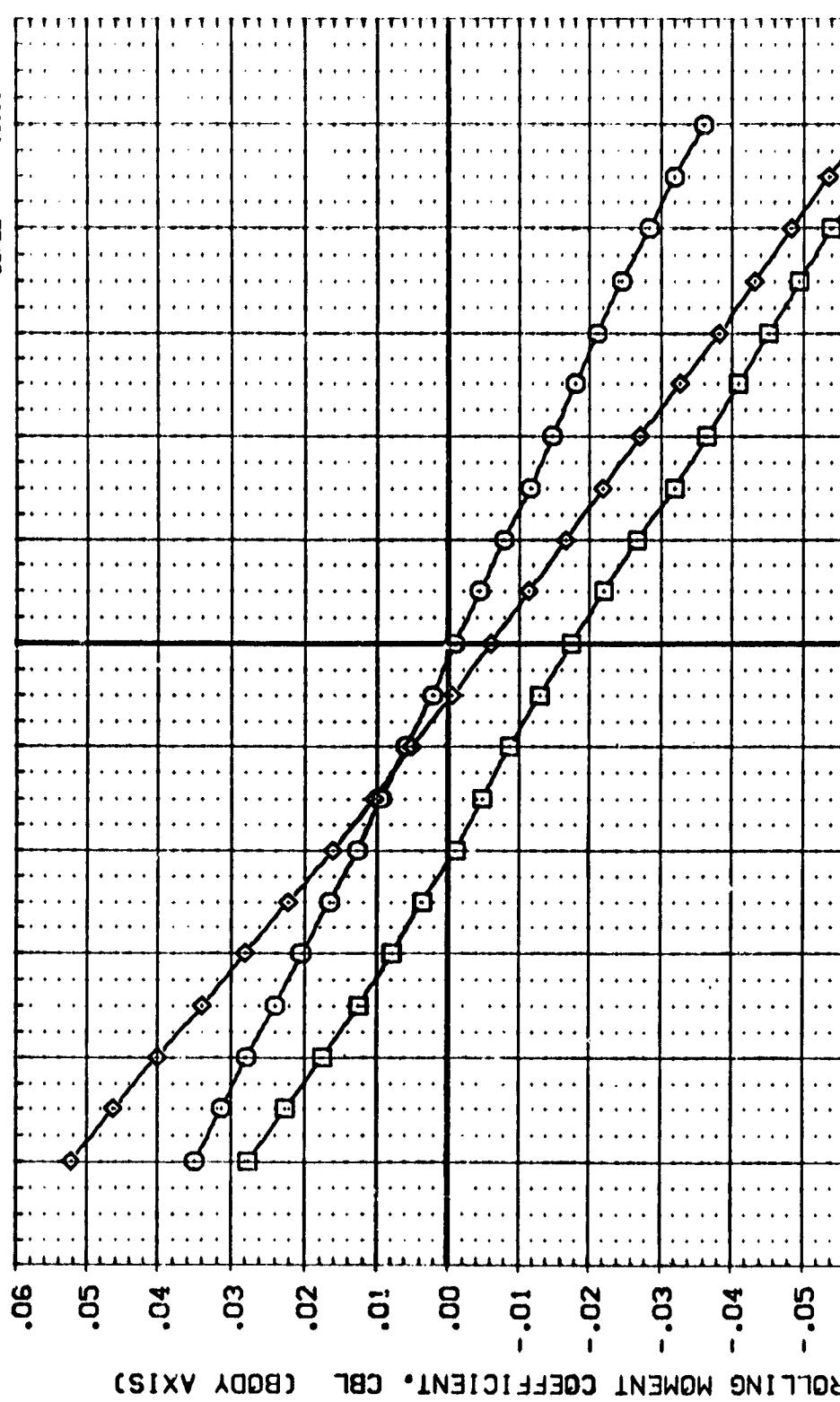
DATA SET SNAME CONFIGURATION DESCRIPTION  
 (RTL002) AEDC VA-422(IA-57) ISOLATED O/E/ET  
 (RTL028) AEDC VA-422(IA-57) O/E/ET VARIATION SRB  
 (RTL059) AEDC VA-422(IA-57) O/E/ET VARIATION SRB

REFERENCE INFORMATION  
 SREF 2630.0000 SQ.FT.  
 XREF 1250.3500 IN.  
 YREF 1052.0300 IN.  
 ZREF 447.0000 IN.  
 X1 1250.3500 IN.  
 Y1 1052.0300 IN.  
 Z1 447.0000 IN.  
 X2 1250.3500 IN.  
 Y2 1052.0300 IN.  
 Z2 447.0000 IN.  
 SCALE .0100



EFFECT OF SRB ON O/E/ET CHARACT. (POSITION 3, PT/JET=750)  
 (A)MACH = 4.50

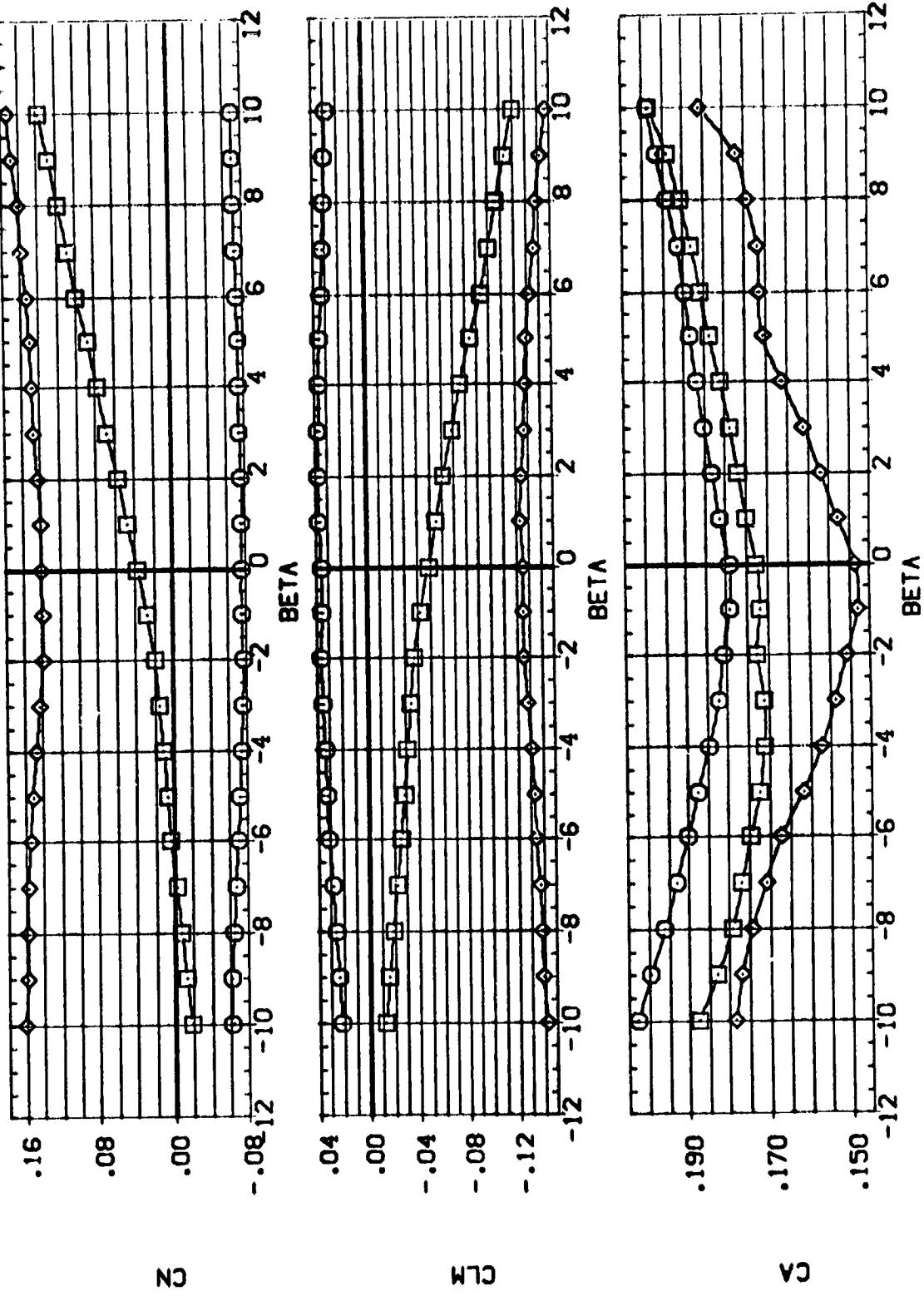
DATA SET STREAM CONFIGURATION DESCRIPTION  
 AEDC VA-4221 (A-571) ISOLATED SRB/ET  
 AEDC VA-4221 (A-571) GRB/ET W/RIGHT SRB  
 AEDC VA-4221 (A-571) GRB/ET W/BOTH SRB  
 [RTLOC2] [RTLOC8] [RTLOC9]



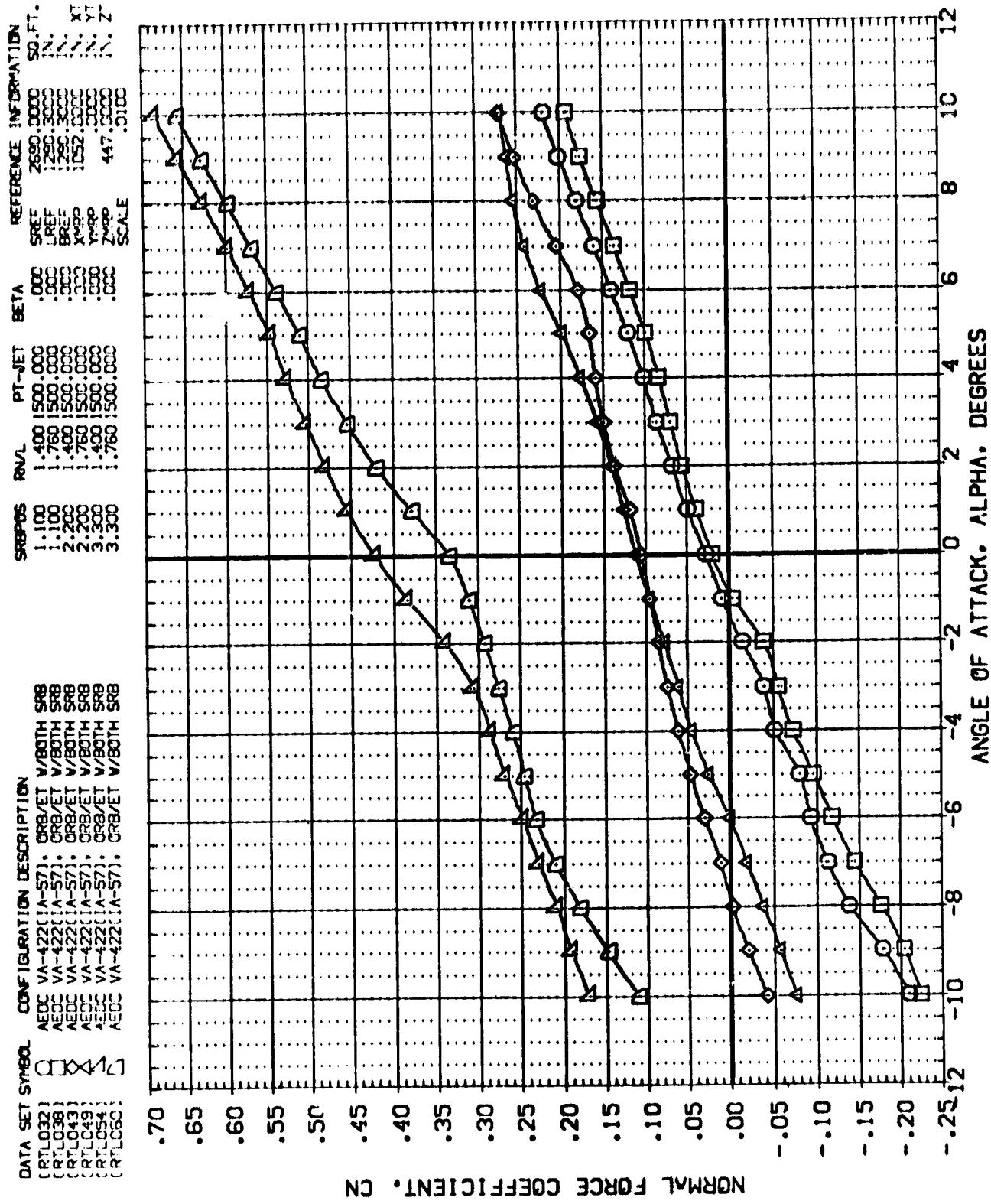
EFFECT OF SRB ON 0/ET CHARACT. (POSITION 3, PT/JET=750)  
(A)MACH = 4.50

DATA SET SUMMARY CONFIGURATION DESCRIPTION  
 RTLD02 AEDC VA-422 [A-57]; ISOLATED SRB/ET  
 RTLD02 AEDC VA-422 [A-57]; SRB/ET VRIGHT SRB  
 RTLD03 AEDC VA-422 [A-57]; SRB/ET VLEFT SRB

REFERENCE INFORMATION  
 REF 2680.0000 SQ.FT.  
 LREF 1250.3000 N.  
 BREF 1250.3000 N.  
 XREF 1052.0000 N.  
 YREF .0000 N.  
 ZREF .447.3000 N.  
 SCALE .2150



EFFECT OF SRB ON 0/ET CHARACT. (POSITION 3, PT/JET=750)  
 $(\alpha)_{MACH} = 4.50$

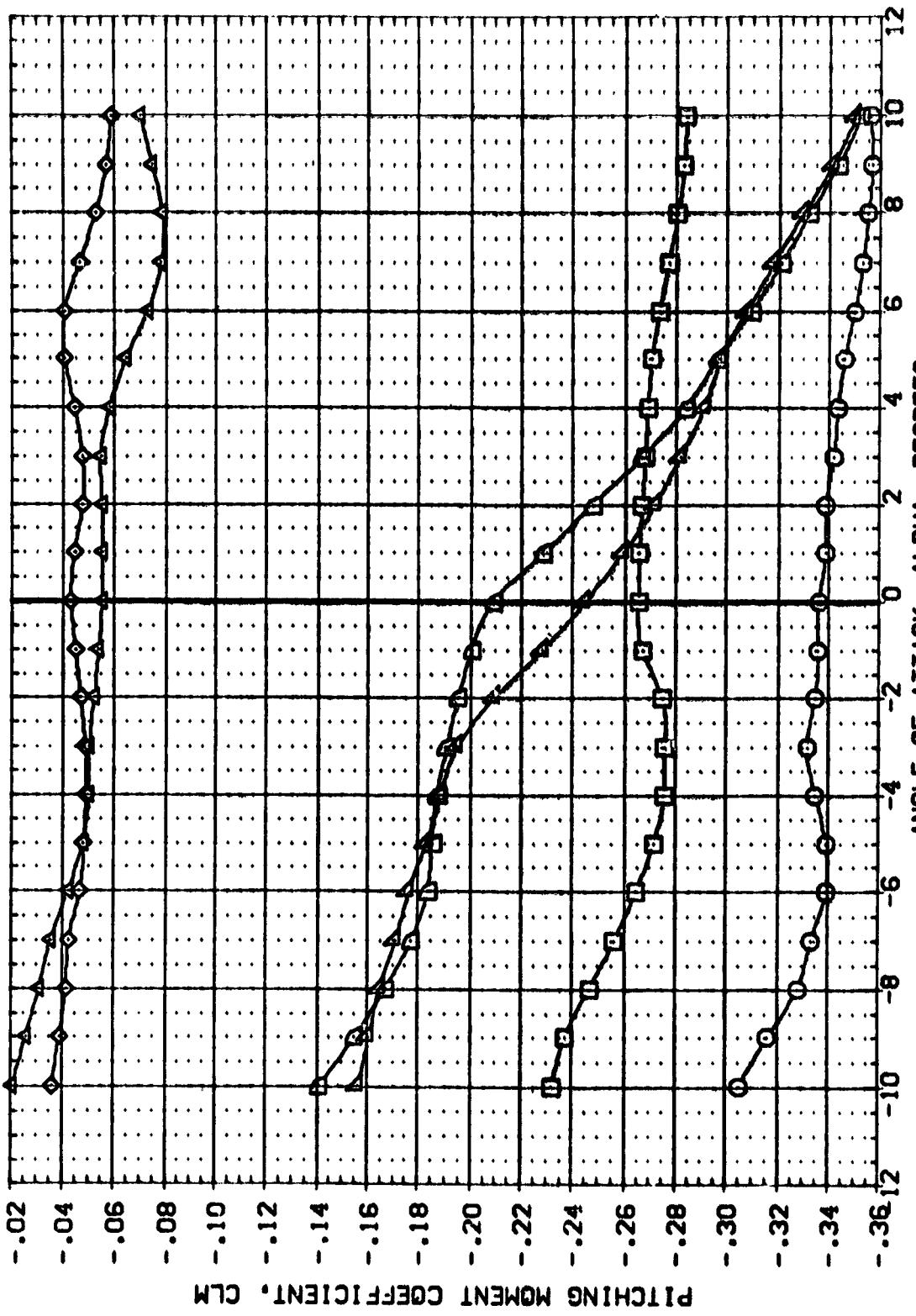


EFFECT OF REYNOLDS NUMBER ON 0/ET CHARACTERISTICS  
 $(\text{A})_{\text{MACH}} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

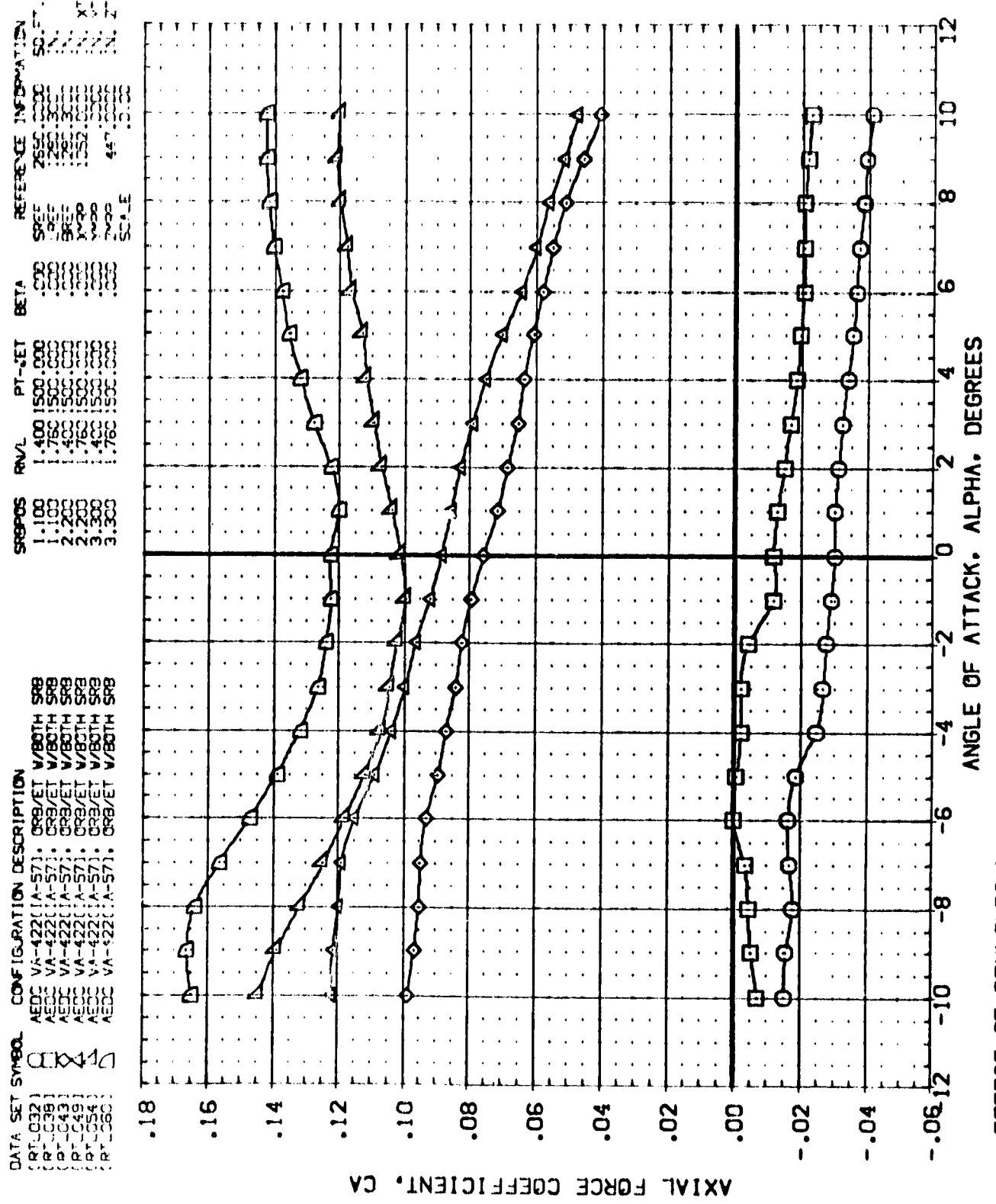
(RTLD032)	AEDC	VA-422 (A-571)	ORB/ET V/ADTH SPS
(RTLD39)	AEDC	VA-422 (A-571)	ORB/ET V/ADTH SPS
(RTLD43)	AEDC	VA-422 (A-571)	ORB/ET V/ADTH SPS
(RTLD49)	AEDC	VA-422 (A-571)	ORB/ET V/ADTH SPS
(RTLD54)	AEDC	VA-422 (A-571)	ORB/ET V/ADTH SPS
(RTLD50)	AEDC	VA-422 (A-571)	ORB/ET V/ADTH SPS

REF. 2690.0000 50. FT.  
 SREF .0000 .0000  
 LREF .0000 .0000  
 BREF .0000 .0000  
 AREF .0000 .0000  
 TREF .0000 .0000  
 ZREF .0000 .0000  
 SCALE .0100



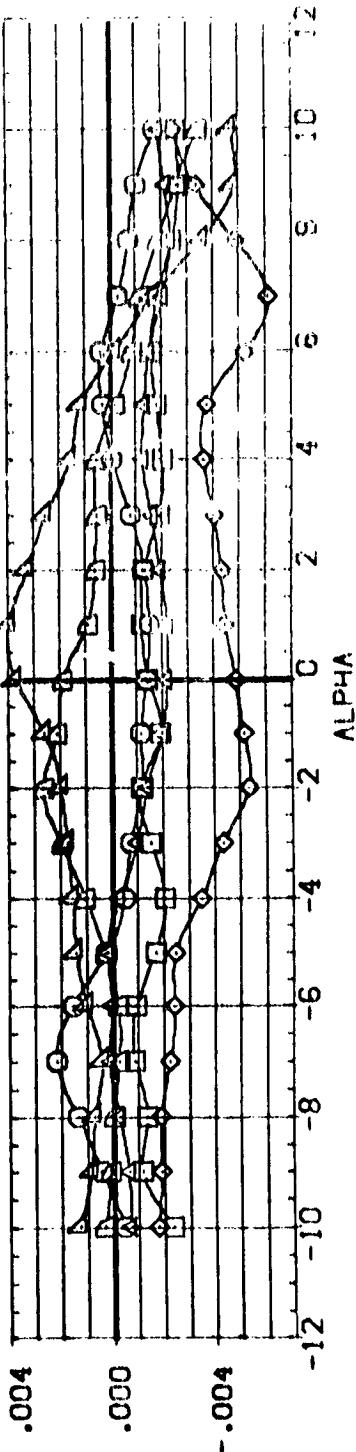
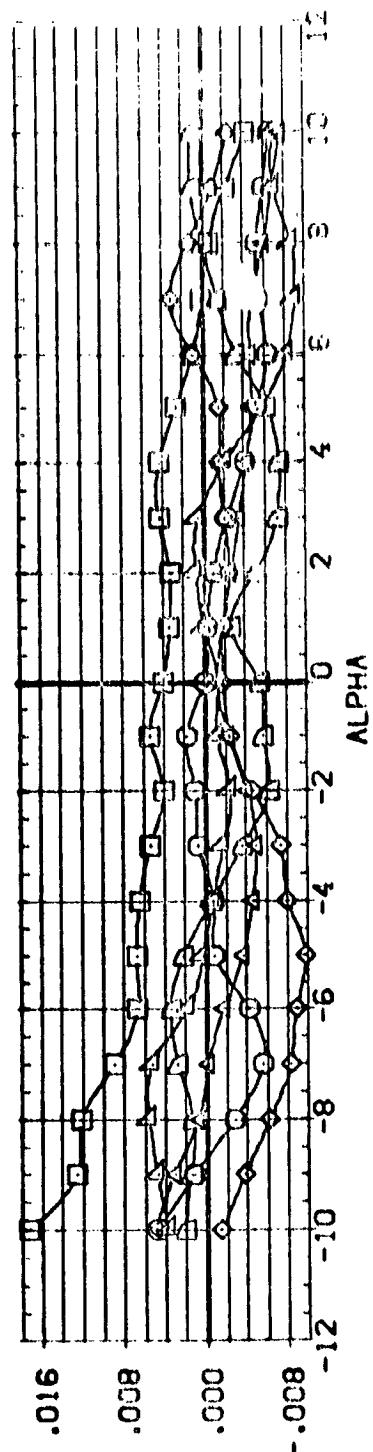
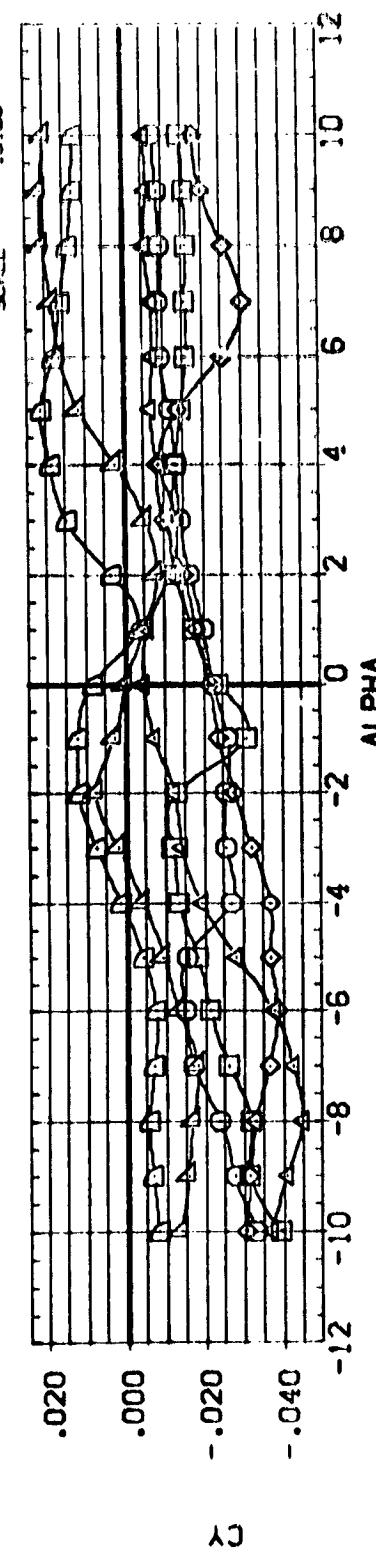
EFFECT OF REYNOLDS NUMBER ON 0/ET CHARACTERISTICS

$$(\text{V}_\infty \text{MACH}) = 4.50$$



## DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL032)	AEDC	VA-422	IA-571.	CRB/ET	V/BOTH	SRB
(RTL039)	AEDC	VA-422	IA-571.	CRB/ET	V/BOTH	SRB
(RTL043)	AEDC	VA-422	IA-571.	CRB/ET	V/BOTH	SRB
(RTL049)	AEDC	VA-422	IA-571.	CRB/ET	V/BOTH	SRB
(RTL050)	AEDC	VA-422	IA-571.	CRB/ET	V/BOTH	SRB

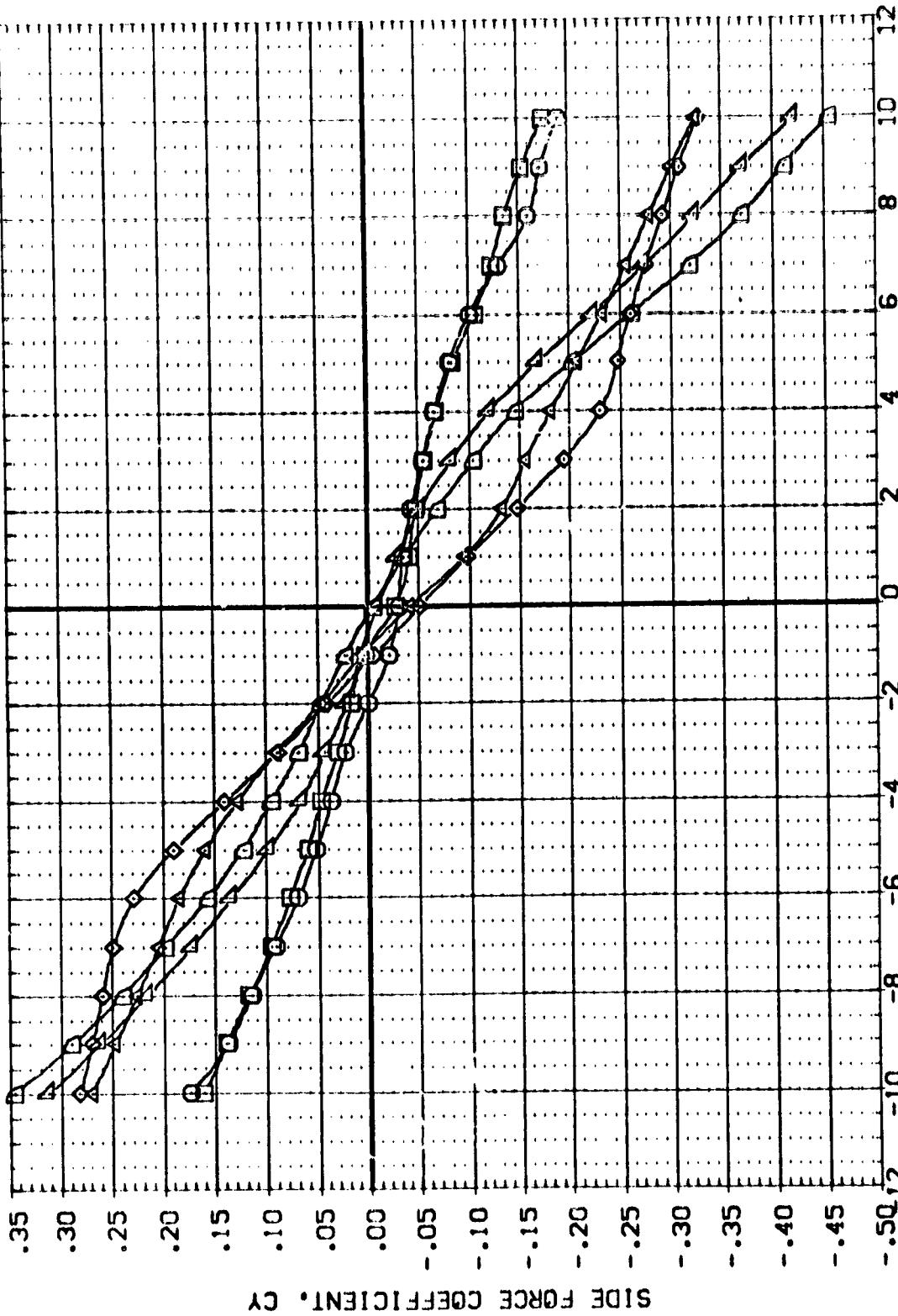


EFFECT OF REYNOLDS NUMBER ON O/ET CHARACTERISTICS  
 $(\text{MACH} = 4.50)$

2 3 2 2

==

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFL.	PT-JET	ALPHA	REFERENCE INFORMATION
R7-033	AEDC VA-422(A-57) V/BOTH SRB	.1.100	.1.400	.1500	REF 2680 2000 SF
R7-039	AEDC VA-422(A-57) V/BOTH SRB	.1.100	.1.760	.1500	REF 2680 2000 SF
R7-044	AEDC VA-422(A-57) V/BOTH SRB	.2.200	.4.000	.1500	REF 2680 2000 SF
R7-055	AEDC VA-422(A-57) V/BOTH SRB	.2.200	.760	.1500	REF 2680 2000 SF
R7-056	AEDC VA-422(A-57) V/BOTH SRB	.3.300	.4.000	.1500	REF 2680 2000 SF
R7-057	AEDC VA-422(A-57) V/BOTH SRB	.3.300	.760	.1500	REF 2680 2000 SF



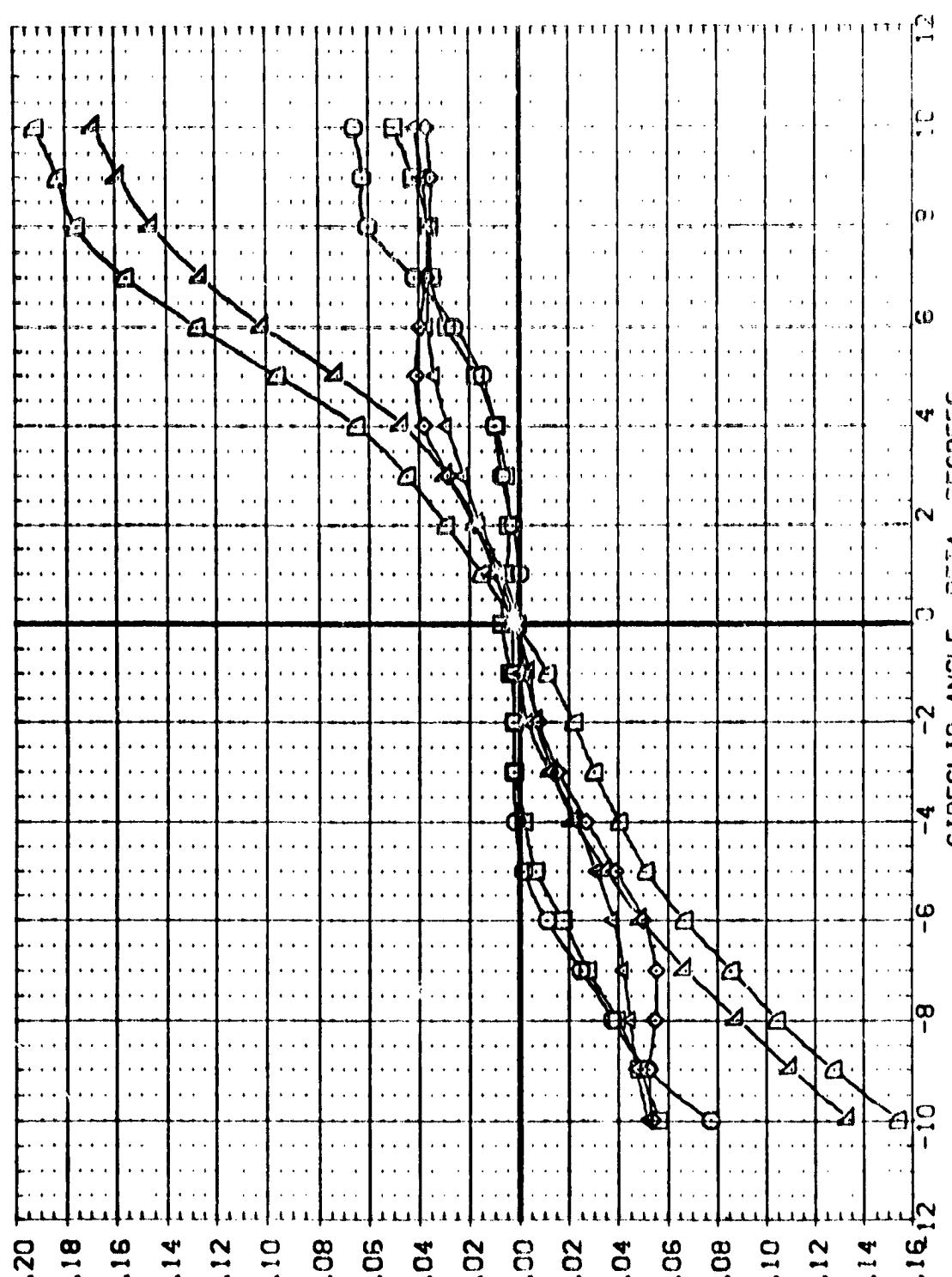
EFFECT OF REYNOLDS NUMBER ON 0/ET CHARACTERISTICS

(A) MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

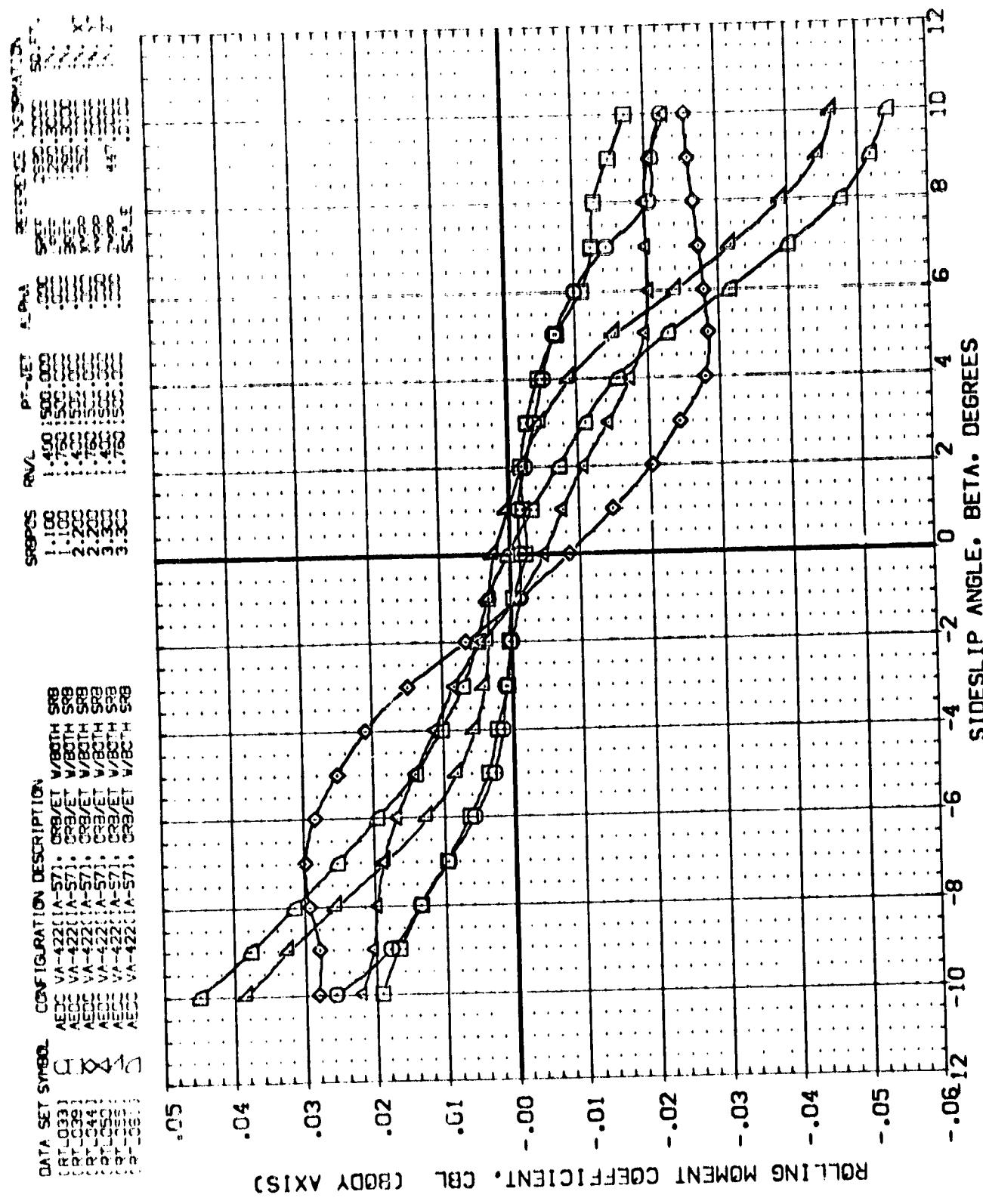
(RTL033)	AEDC VA-422 (IA-571)	GRB/ET V/BOTH	SRA
(RTL038)	AEDC VA-422 (IA-571)	GRB/ET V/BOTH	SRA
(RTL044)	AEDC VA-422 (IA-571)	GRB/ET V/BOTH	SRA
(RTL050)	AEDC VA-422 (IA-571)	GRB/ET V/BOTH	SRA
(RTL055)	AEDC VA-422 (IA-571)	GRB/ET V/BOTH	SRA
(RTL061)	AEDC VA-422 (IA-571)	GRB/ET V/BOTH	SRA

SRPOS ROLL PT-JET ALPHA REFERENCE INFORMATION  
 1.100 1.400 1500 .000 .000 260 1000 SQ.FT.  
 1.100 1.760 1500 .000 .000 280 3000 SQ.FT.  
 2.200 1.400 1500 .000 .000 280 3000 SQ.FT.  
 2.200 1.760 1500 .000 .000 280 3000 SQ.FT.  
 3.300 1.400 1500 .000 .000 280 3000 SQ.FT.  
 3.300 1.760 1500 .000 .000 280 3000 SQ.FT.



EFFECT OF REYNOLDS NUMBER ON CY/N CHARACTERISTICS

$(\alpha/\alpha_{MACH}) = 4.50$

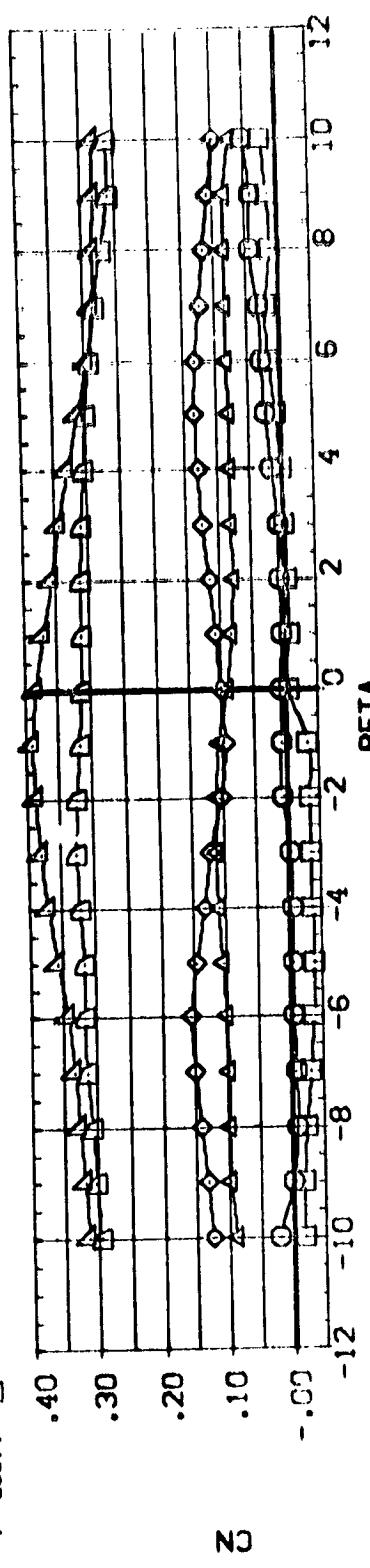


EFFECT OF REYNOLDS NUMBER ON CBL CHARACTERISTICS

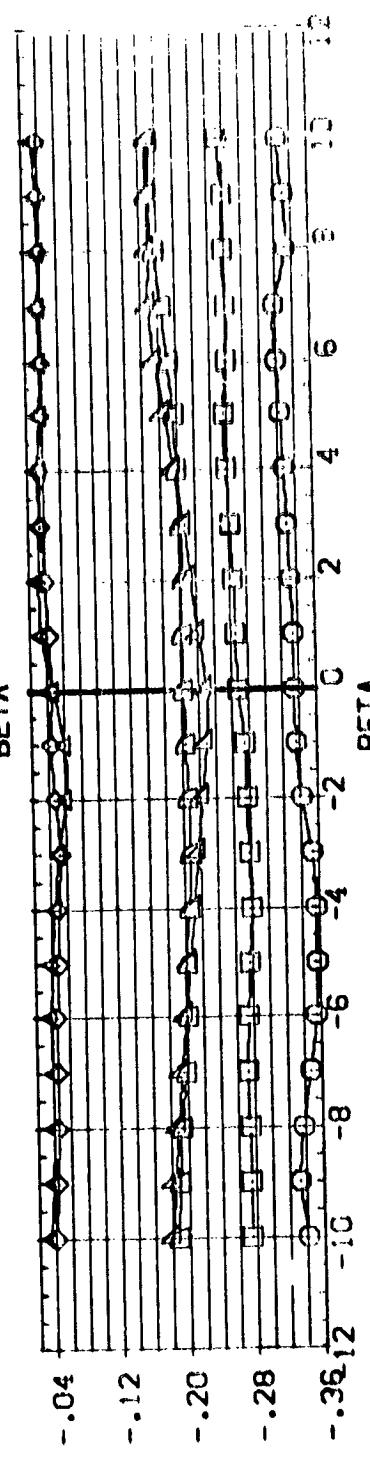
(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

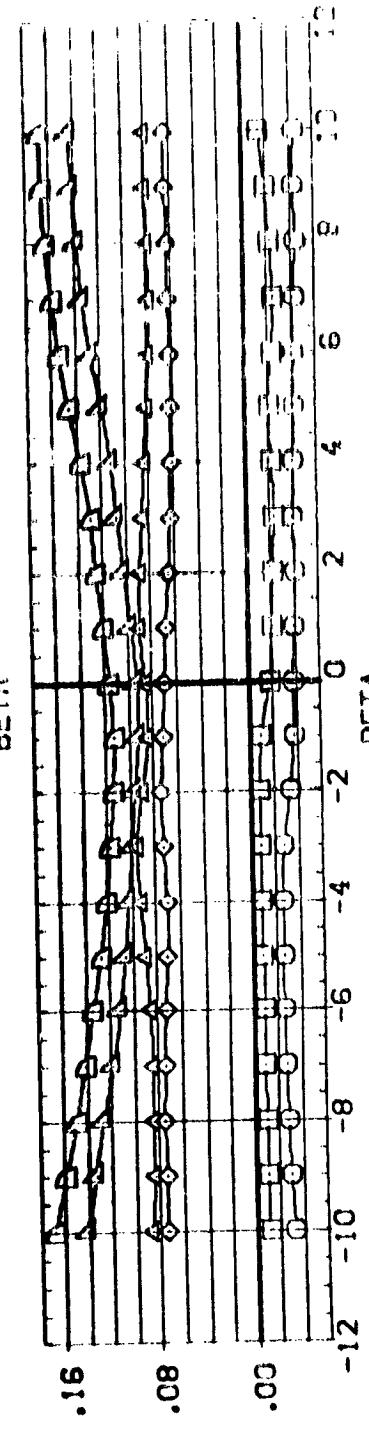
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	REYNOLDS NUMBER	PILOT SET	ALPHA	REFERENCE INTEGRAL
(RTL033)	AEDC VA-4221 IA-571; ORB/ET V/BOTH SRB	1.100	1.400	100.00	.000	2680.000
(RTL038)	AEDC VA-4221 IA-571; ORB/ET V/BOTH SRB	1.100	1.763	100.00	.000	2680.000
(RTL044)	AEDC VA-4221 IA-571; ORB/ET V/BOTH SRB	2.200	1.400	100.00	.000	2680.000
(RTL050)	AEDC VA-4221 IA-571; ORB/ET V/BOTH SRB	2.200	1.763	100.00	.000	2680.000
(RTL055)	AEDC VA-4221 IA-571; ORB/ET V/BOTH SRB	3.300	1.400	100.00	.000	2680.000
(RTL059)	AEDC VA-4221 IA-571; ORB/ET V/BOTH SRB	3.300	1.763	100.00	.000	2680.000



Cn



Clm



Ca

EFFECT OF REYNOLDS NUMBER ON C/ET CHARACTERISTICS

$$CA/MACH = 4.50$$

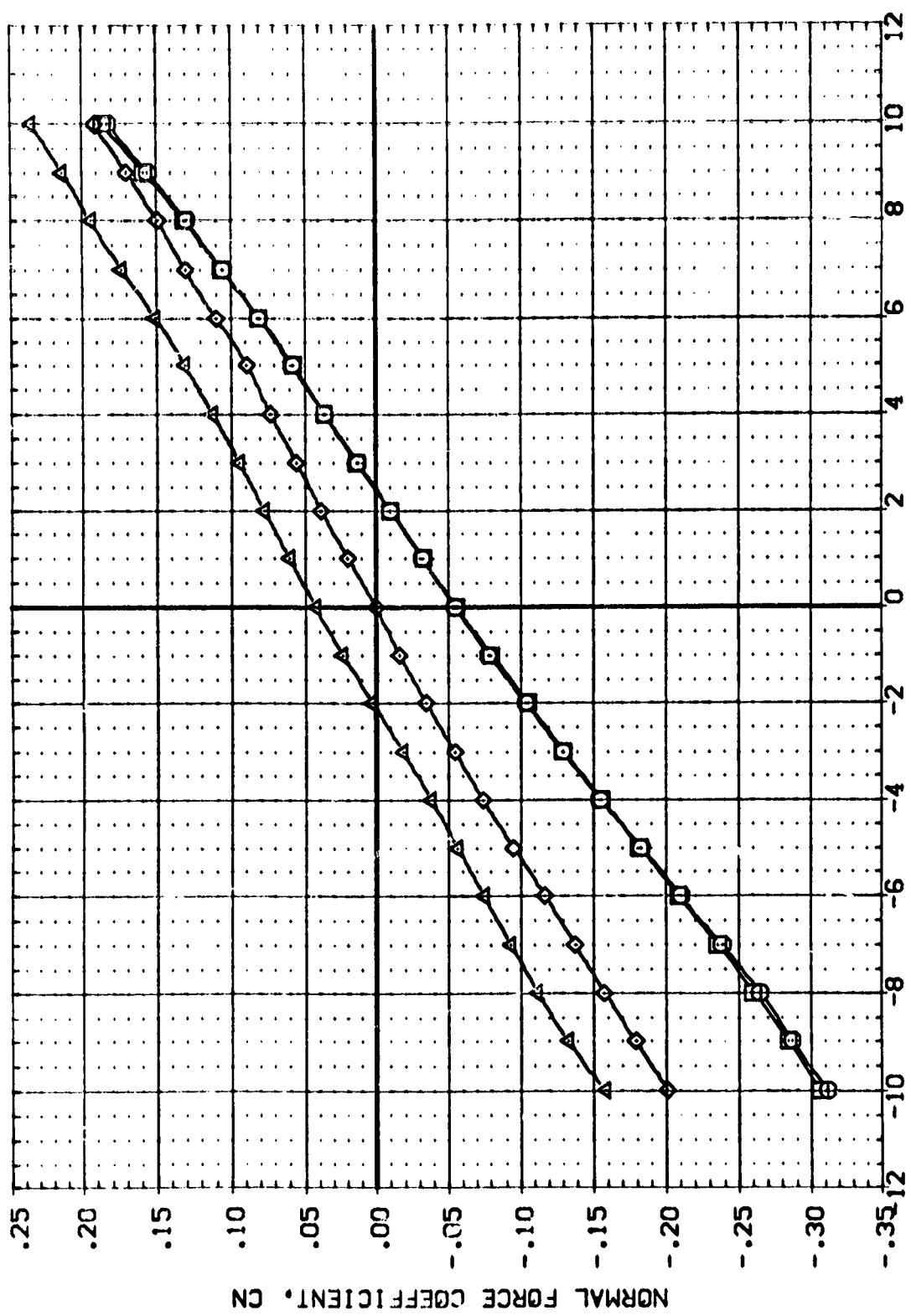
-12 -10 -8 -6 -4 -2 0 2 4 6 8 10 12

-12 -10 -8 -6 -4 -2 0 2 4 6 8 10 12

-12 -10 -8 -6 -4 -2 0 2 4 6 8 10 12

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(RTL001)	AEDC	VA-4221[A-57].
(RTL002)	AEDC	VA-4221[A-57].
(RTL003)	AEDC	VA-4221[A-57].
(RTL013)	AEDC	VA-4221[A-57].

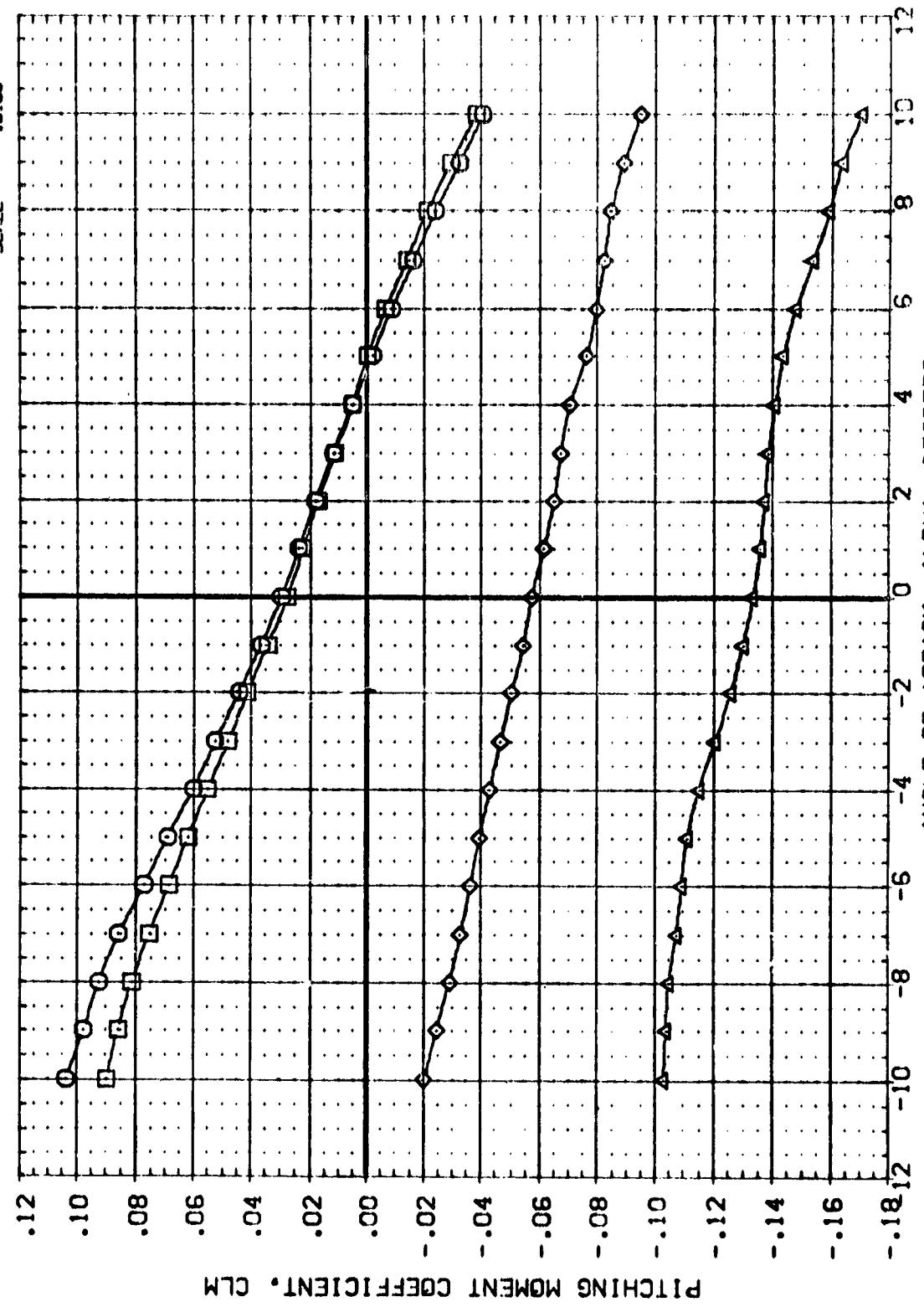
SREFPOS	RVAL	PT-JET	BETA	REFERENCE INFORMATION	SC.FT.
.100	1.760	.000	.000	SREF	269.0000
.100	1.760	750.000	.000	1.REF	220.3000
.100	1.760	1500.000	.000	SREF	220.3000
.100	1.760	1500.000	.000	XNP	220.3000
				WNP	220.3000
				ZNP	220.3000
				SCE	220.3000



## EFFECT OF ONE SRB AND SRB PLUME ON GET CHARACTERISTICS (POSITION 1)

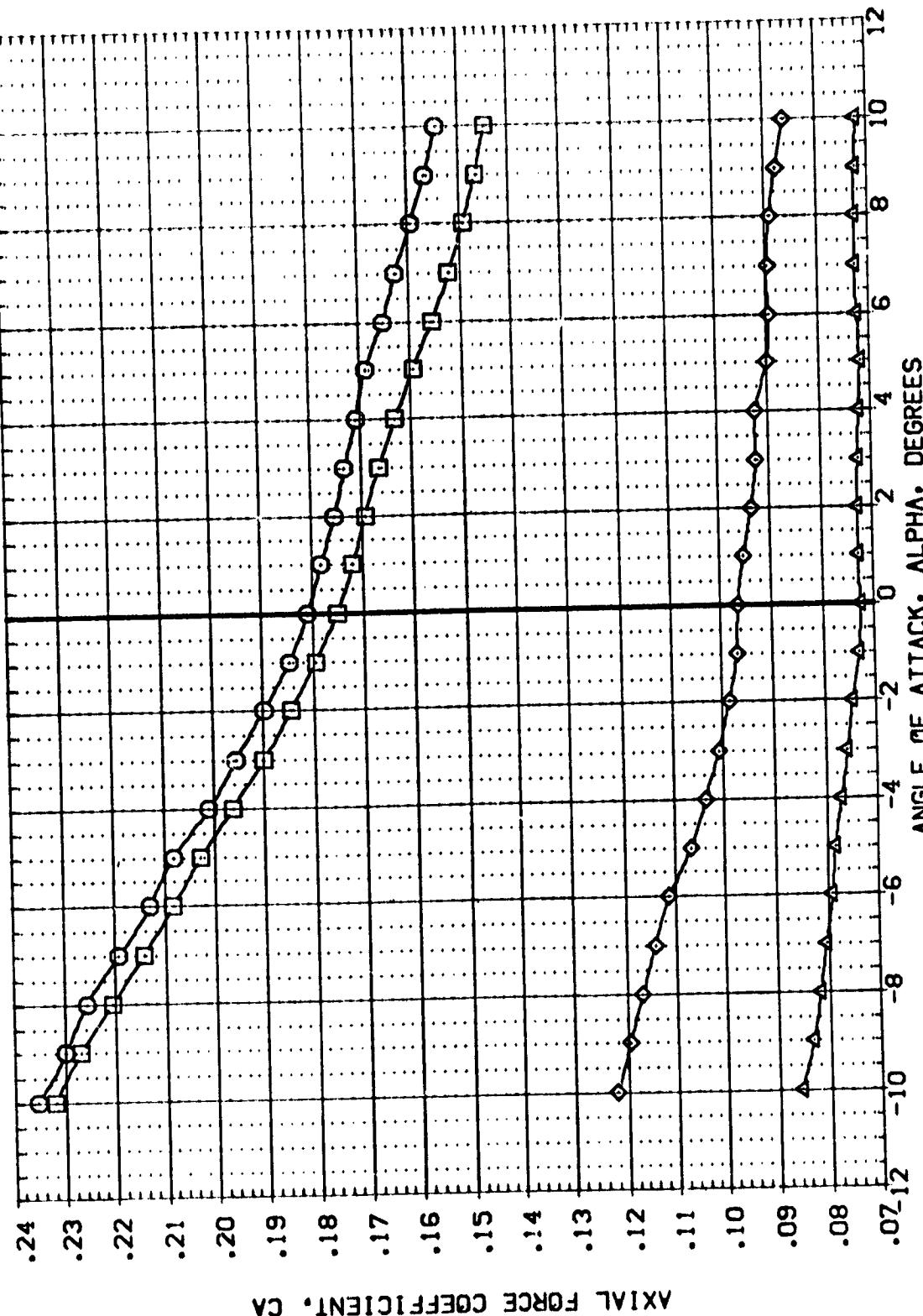
$$(\text{A})\text{MACH} = 4.50$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	R/V	PT-JET	BETA	REFERENCE INFORMATION
[RTL001]	AEDC VA-422 (IA-57). ISOLATED SRB/ET	.100	1.750	.000	.000	REF 2650.0000 SD.FT.
[RTL009]	AEDC VA-422 (IA-57). ORB/ET V/RIGHT SRB	.100	1.750	.750	.000	REF 1290.3333 IN.
[RTL011]	AEDC VA-422 (IA-57). ORB/ET V/RIGHT SRB	.100	1.750	.750	.000	REF 1290.3333 IN.
[RTL013]	AEDC VA-422 (IA-57). ORB/ET V/RIGHT SRB	.100	1.750	1.500	.000	REF 1052.0000 IN. XT YARP 447.0000 IN. ZT ZCRP .0100



EFFECT OF ONE SRB AND SRB PLUME ON O/ET CHARACT. (POSITION 1)  
(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CRTL001) AEDC VA-422([A-57]) ISOLATED SRB/ET  
 (CRTL009) AEDC VA-422([A-57]) CRB/ET V/RIGHT SRB  
 (CRTL011) AEDC VA-422([A-57]) CRB/ET V/RIGHT SRB  
 (CRTL013) AEDC VA-422([A-57]) CRB/ET V/RIGHT SRB



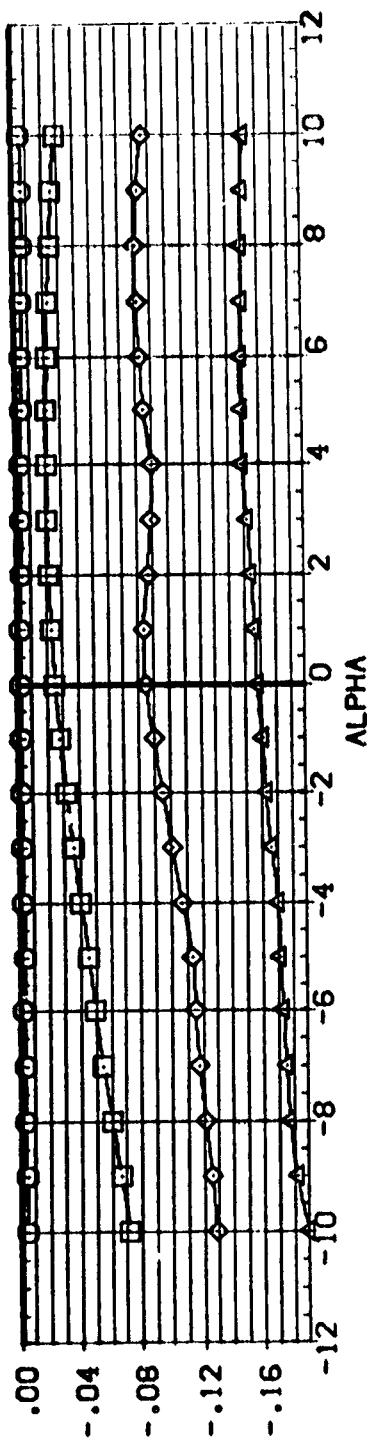
AXIAL FORCE COEFFICIENT, CA

EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHARACT. (POSITION 1)

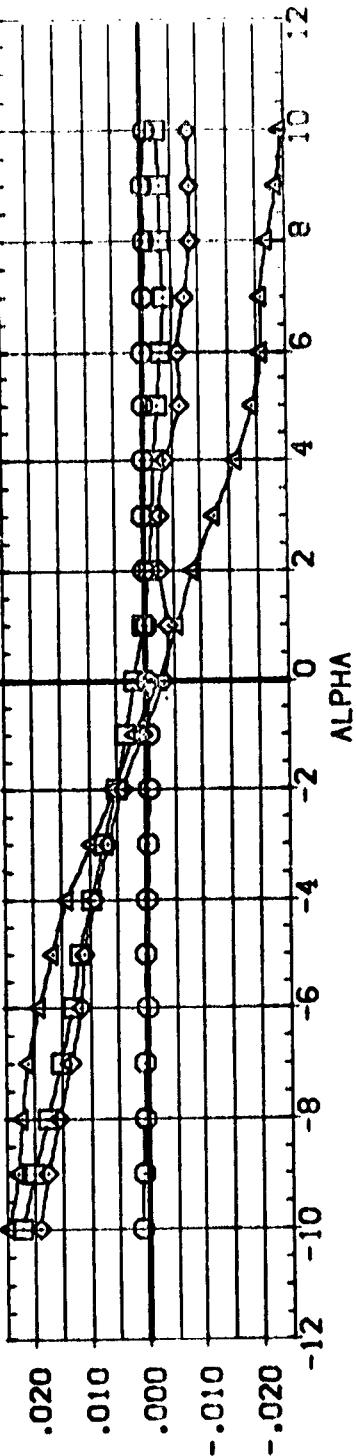
(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL001) AEDC VA-122(A-571). ISOLATED SRB/ET  
 (RTL009) AEDC VA-122(A-571). ORBIT/VRIGHT SRB  
 (RTL005) AEDC VA-122(A-571). ORBIT/VRIGHT SRB  
 (RTL011) AEDC VA-122(A-571). ORBIT/VRIGHT SRB  
 (RTL013) AEDC VA-122(A-571). ORBIT/VRIGHT SRB

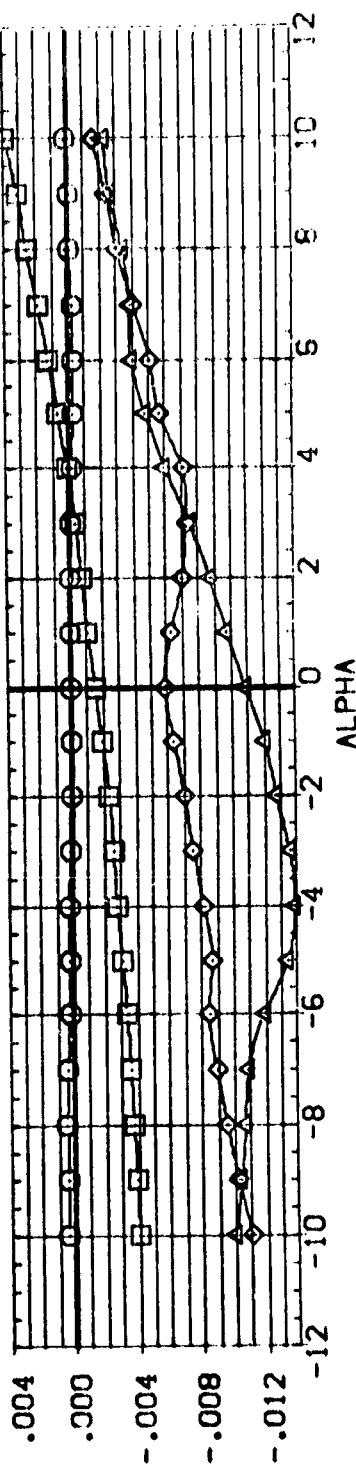
REFERENCE INFORMATION  
 SRPOS RNL PT-JET BETA  
 :100 :1.760 :000 :000  
 :108 :1.760 :750 :000  
 :108 :1.760 :1500 :000  
 SREF LREF BREF XREF YREF ZREF  
 2690.0000 1290.3000 1052.0000 1052.0000 447.0000 .0100  
 SCALE



$C_x$



$C_y$



$C_{BL}$

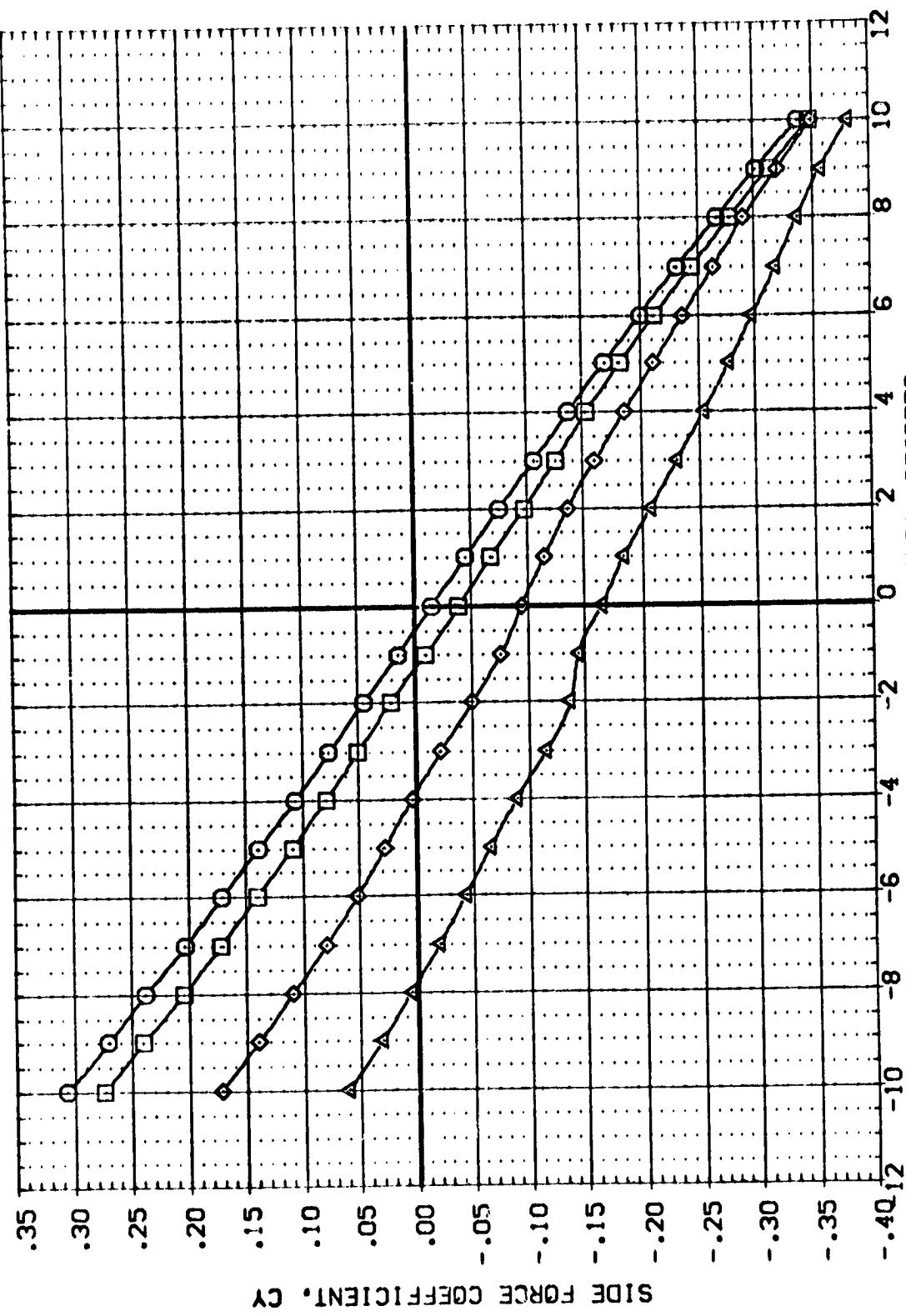
EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHARACT. (POSITION 1)

(A)MACH = 4.50

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DATA SET SYMBOL		CONFIGURATION DESCRIPTION	SREF	RNL	PT-JET	ALPHA	REFERENCE INFORMATION
(RTL002)	O	AEDC VA-4221(A-57); ISOLATED SRB/ET	.100	.760	.000	.000	SREF 250.000 SQ.FT.
(RTL010)	□	AEDC VA-4221(A-57); SRB/ET VRIGHT SRB	.100	.760	.750	.000	LREF 125.300
(RTL012)	△	AEDC VA-4221(A-57); SRB/ET VRIGHT SRB	.100	.760	.150	.000	MREF 102.300
(RTL014)	×	AEDC VA-4221(A-57); SRB/ET VRIGHT SRB	.100	.760	.150	.000	NREF 447.300



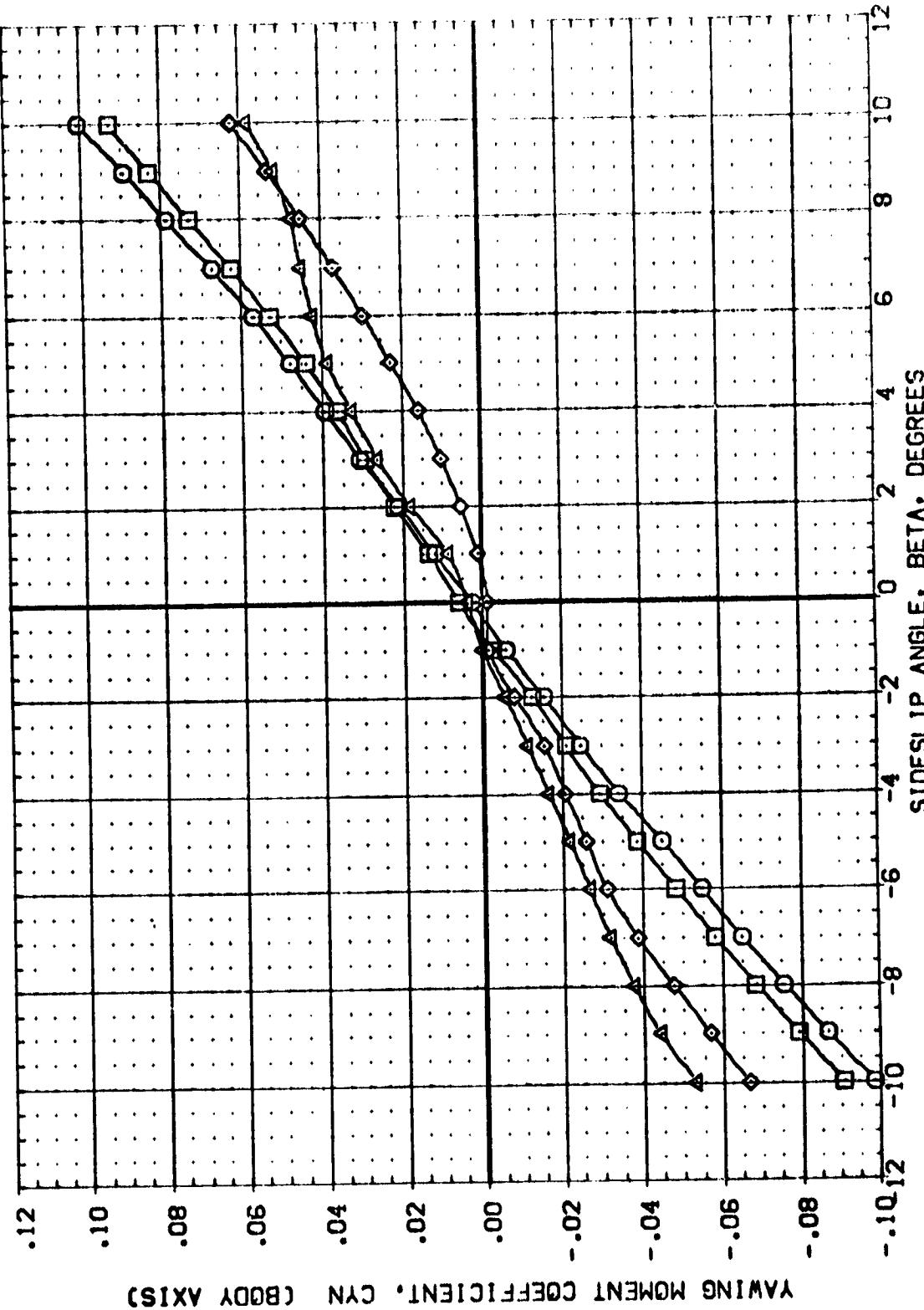
EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHARACT. (POSITION 1)

(MACH = 4.50)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTLO02)	AEDC VA-422([A-57])	ISOLATED SRB/ET
(RTLO01)	AEDC VA-422([A-57])	GRB/ET WRIGHT SRB
(RTLO12)	AEDC VA-422([A-57])	GRB/ET WRIGHT SRB
(RTLO14)	AEDC VA-422([A-57])	GRB/ET WRIGHT SRB

REFERENCE INFORMATION  
 SHEETS RNL PT-JET ALPHA REFERENCE SO. FT.  
 :100 1.760 .000 250.000  
 :100 1.760 .000 125.300  
 :100 1.760 .000 125.300  
 :100 1.760 1500.000 152.000  
 :100 1.760 1500.000 447.000  
 SCALE .0100 IN. ZT

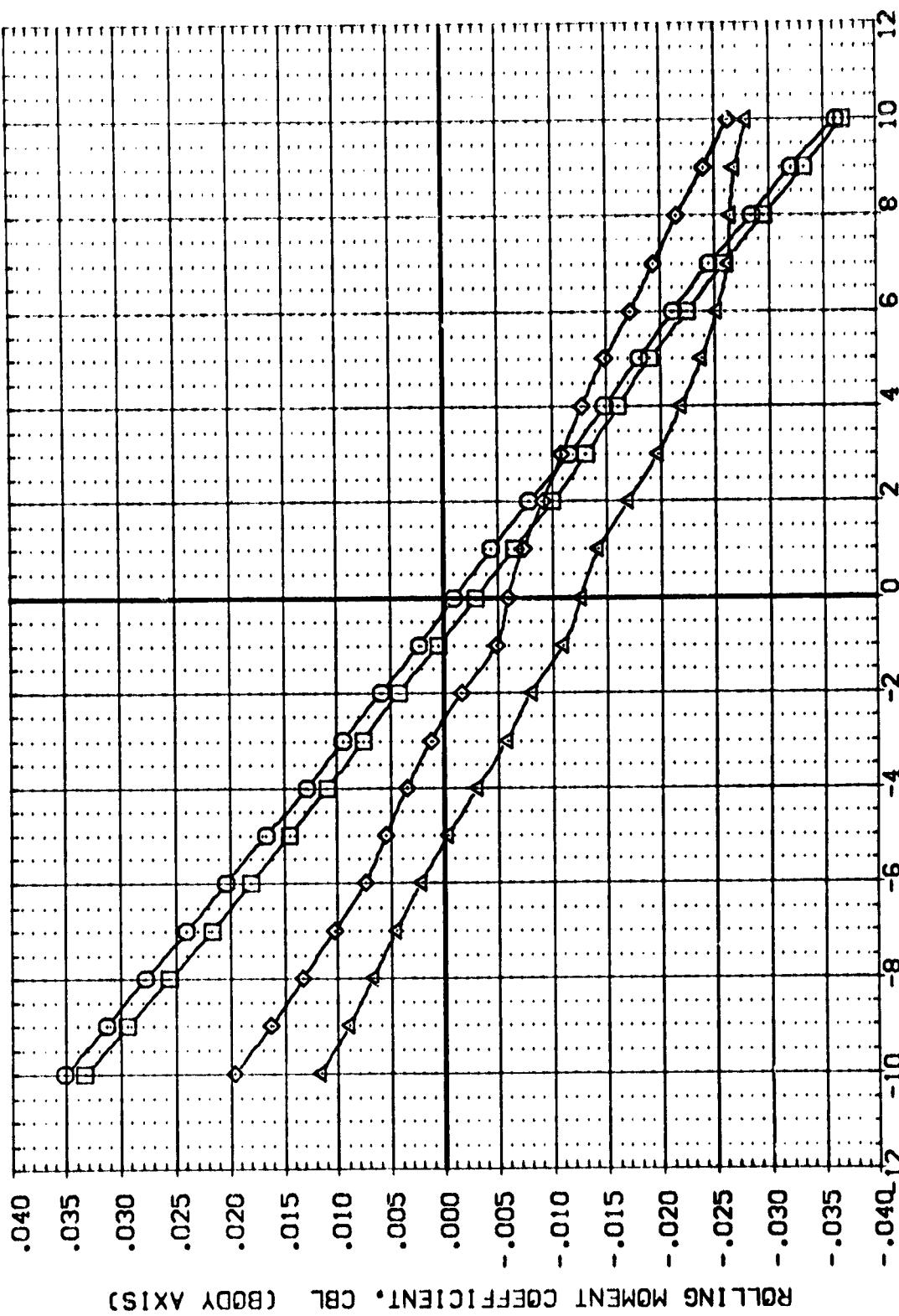


EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHARACT. (POSITION 1)  
 $(\Delta) MACH = 4.50$

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

CRT/LOC2	AEDC VA-422([A-57])	ISOLATED ORB/ET
CRT/LOC3	AEDC VA-422([A-57])	ORB/JET VRIGHT SRB
CRT/LOC4	AEDC VA-422([A-57])	ORB/JET VRIGHT SRB
CRT/LOC5	AEDC VA-422([A-57])	ORB/JET VRIGHT SRB
CRT/LOC14	AEDC VA-422([A-57])	ORB/JET VRIGHT SRB



EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHARACT. (POSITION 1)

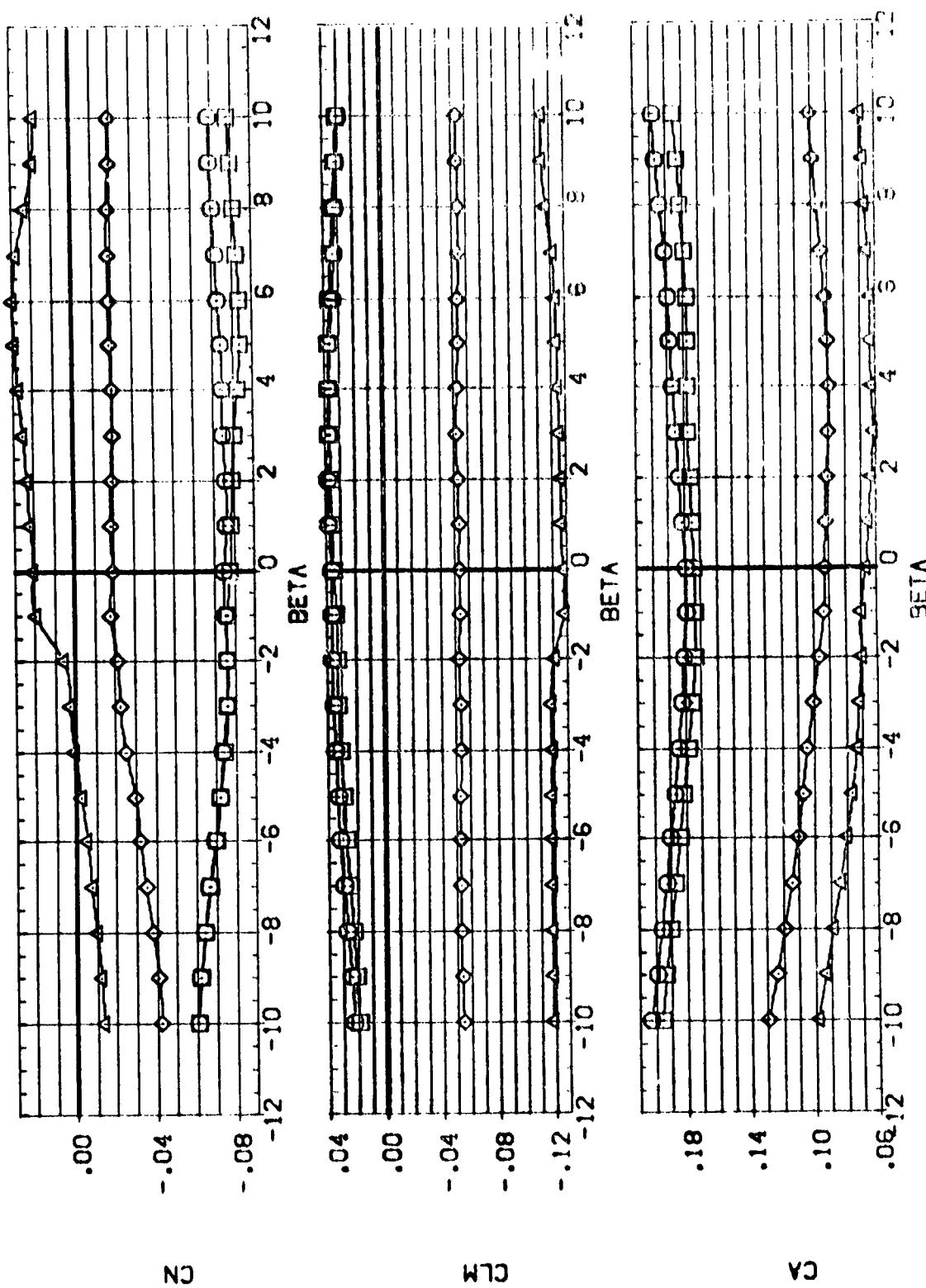
(V<sub>MACH</sub> = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

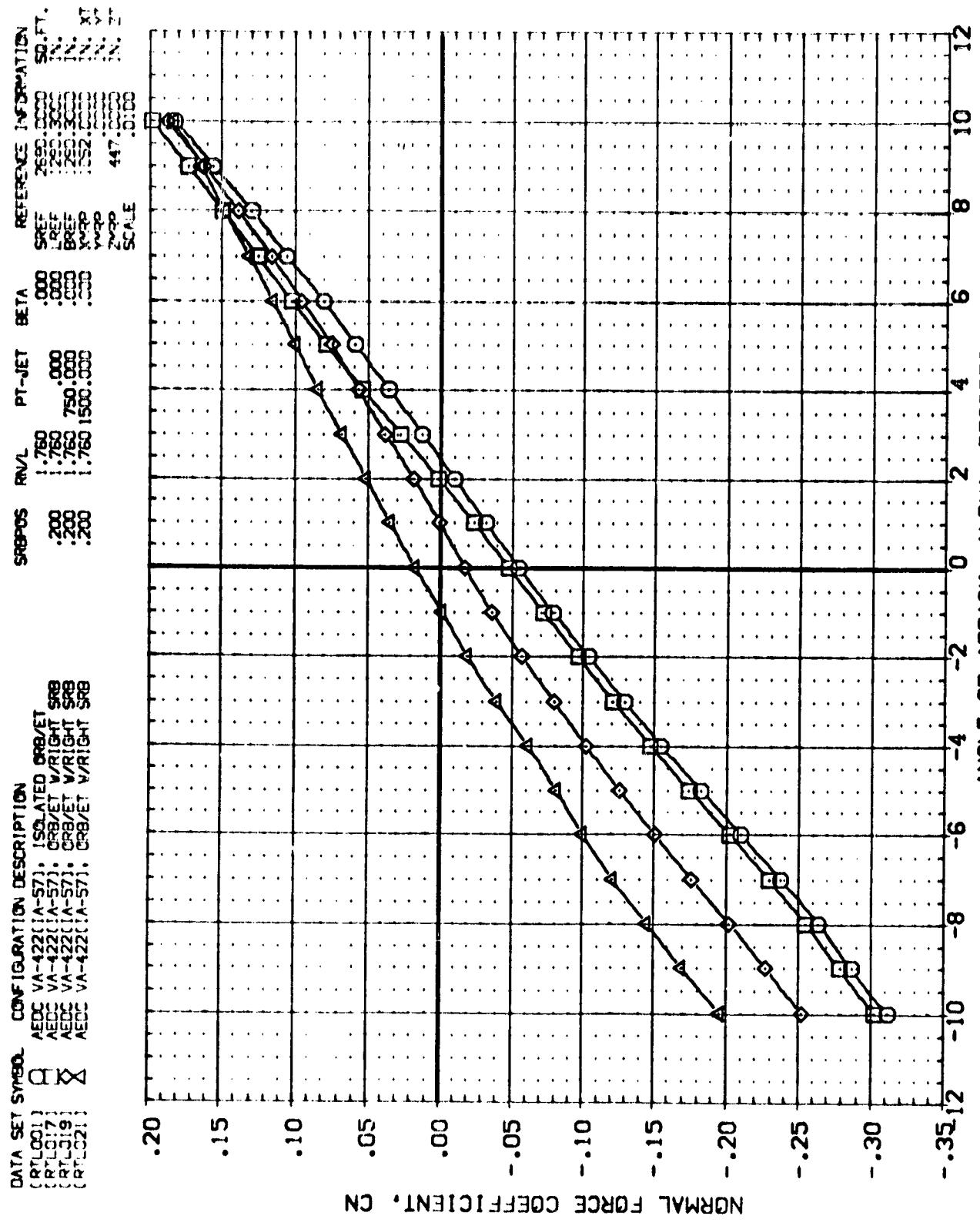
(RTL002)	AEDC	VA-422[(A-57)]	ISOLATED SRB/ET
(RTL010)	AEDC	VA-422[(A-57)]	CRB/ET WRIGHT SRB
(RTL012)	AEDC	VA-422[(A-57)]	CRB/ET WRIGHT SRB
(RTL04)	AEDC	VA-422[(A-57)]	CRB/ET WRIGHT SRB

SPECIES AVAL PT-JET ALPHA REFERENCE INFORMATION  
 .100 .760 .000 SPFB 2690.0000 SPFB  
 .100 .760 .000 LREF 2300.5000 LREF  
 .100 .760 .000 BREF 2500.5000 BREF  
 .100 .760 .000 XSP 52.0000 XSP  
 .100 .760 .000 YSP 447.0000 YSP  
 SCALE .0100



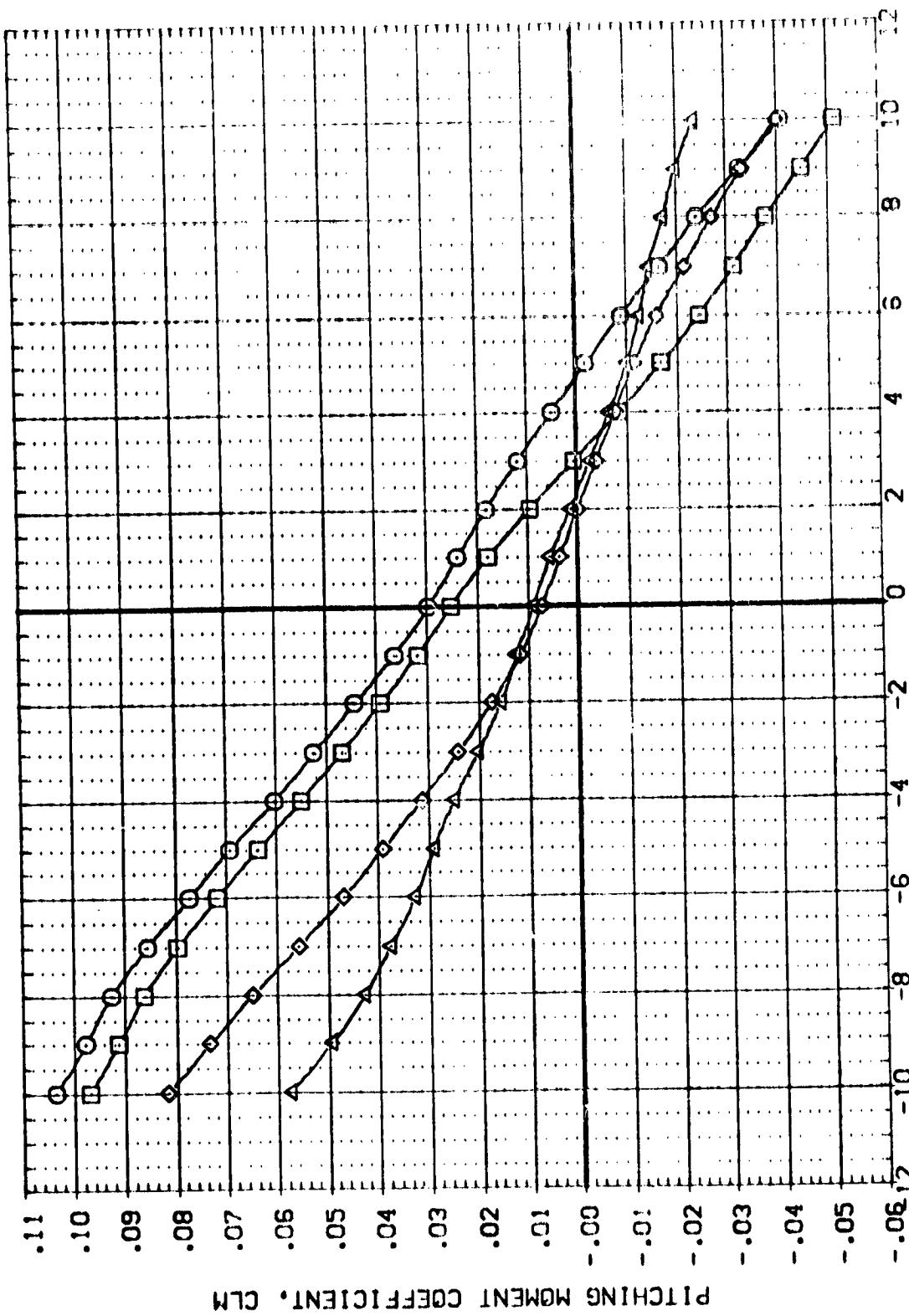
EFFECT OF ONE SRB AND SRB PLUME ON C/ET CHARACTERISTICS  
 $(\text{ATMACH} = 4.50)$

FIGURE 11



EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHARACT. (POSITION 2)  
 $(\Delta MACH = 4.50)$

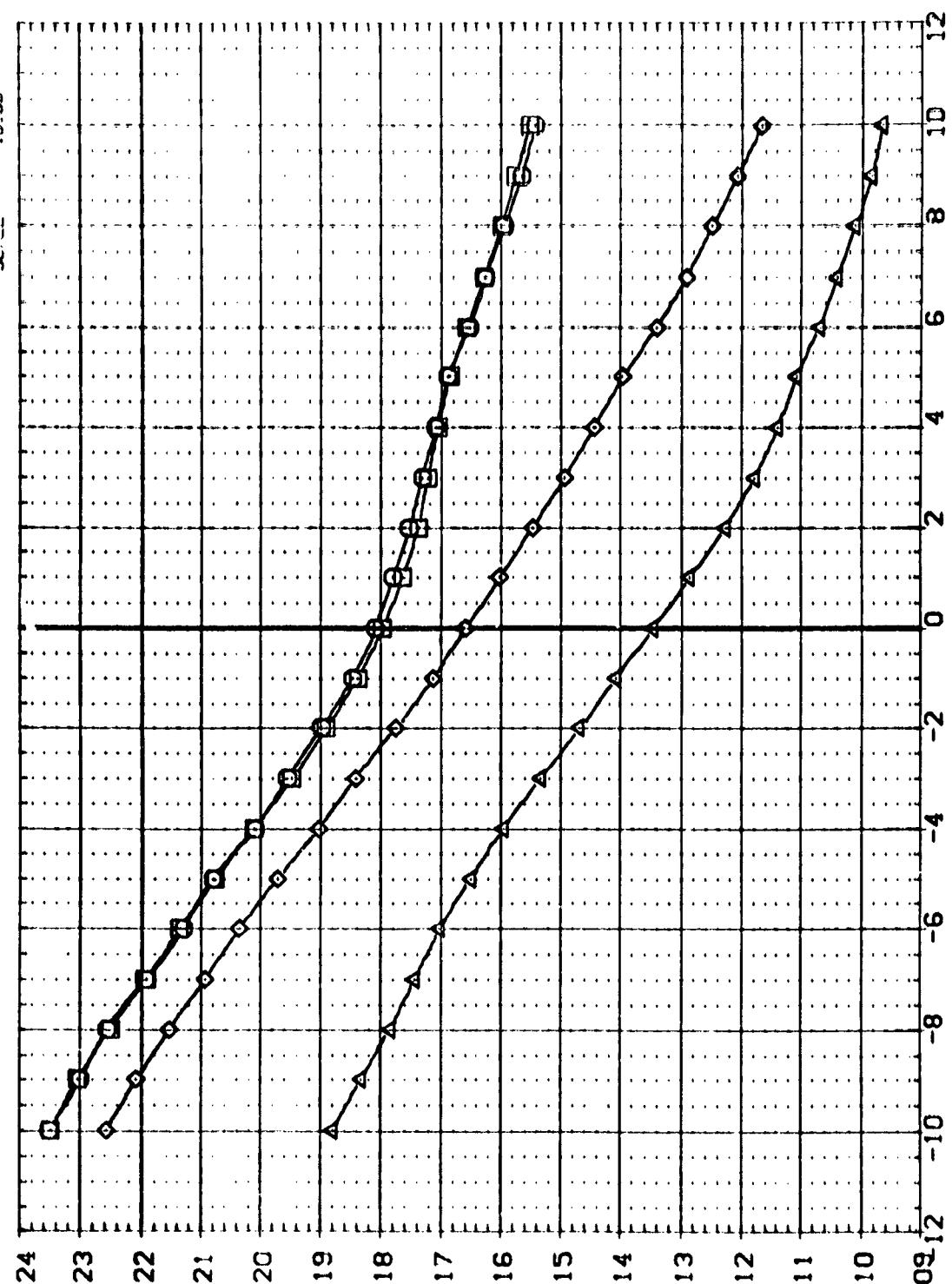
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL001) AEDC VA-422([A-57]) ISOLATED SRB/ET  
 (RTL017) AEDC VA-422([A-57]) ORB/EV V/RIGHT SRB  
 (RTL019) AEDC VA-422([A-57]) ORB/EV V/RIGHT SRB  
 (RTL021) AEDC VA-422([A-57]) ORB/EV V/RIGHT SRB



EFFECT OF ONE SRB AND SRB PLUME ON O/E/T CHARACT. POSITION 2  
 $(A)_{MACH} = 4.50$

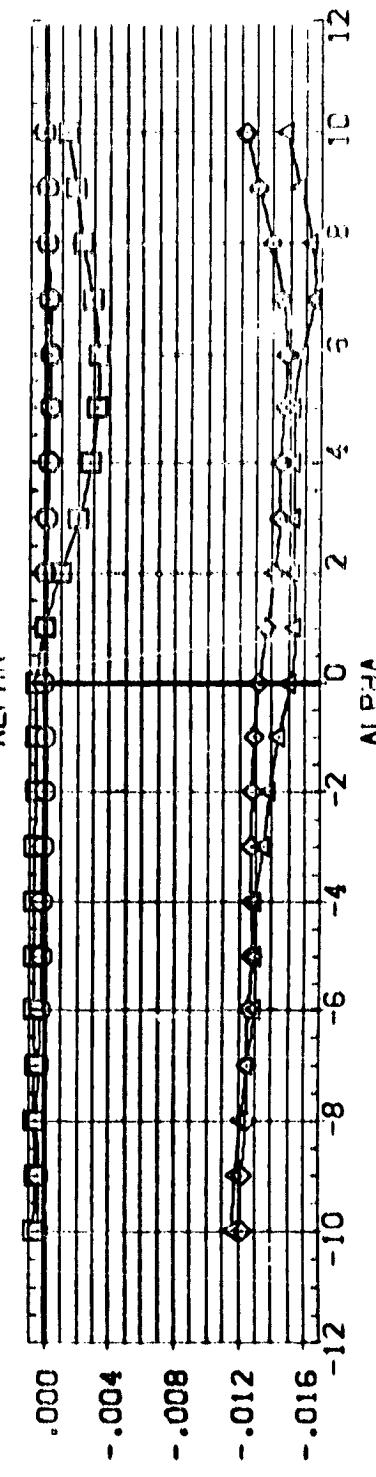
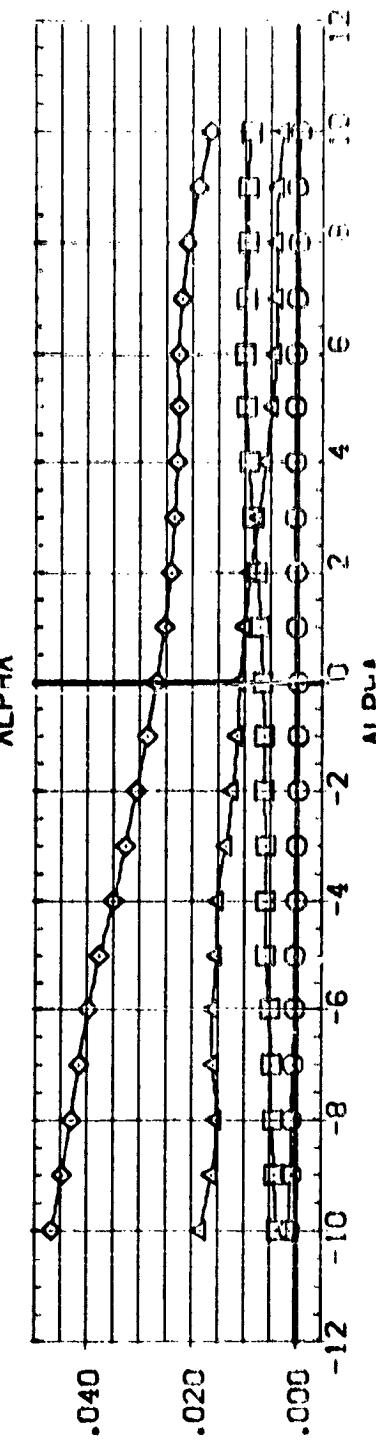
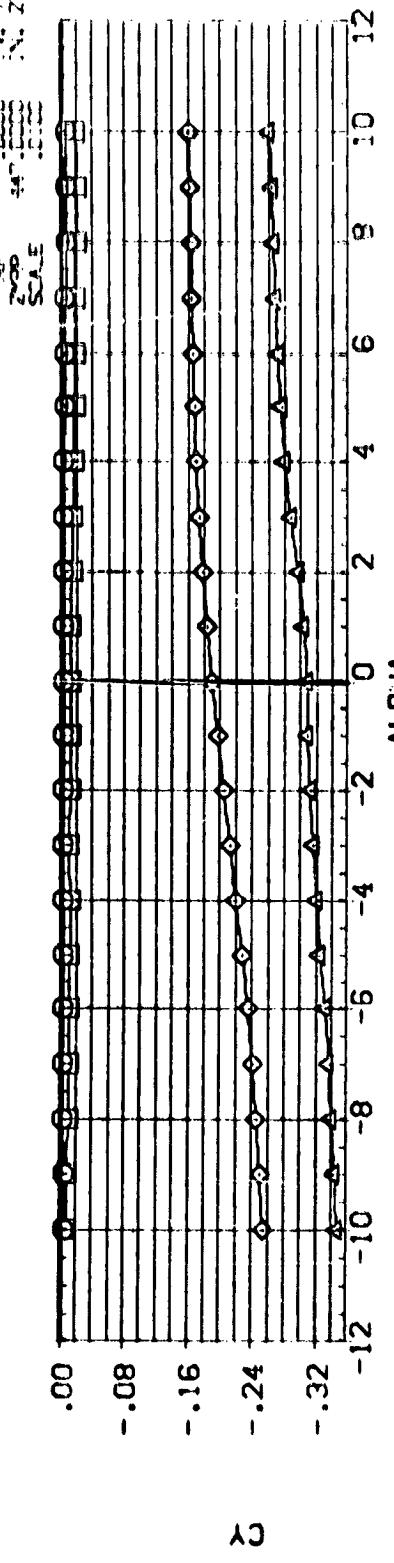
2:25 165

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SPACES	RVL	PT-JET	BETA	REFERENCE INFORMATION
(PTL001)	AEDC VA-422[LA-57]. ISOLATED SRB/ET	.200	1.760	.000	.000	SPCE 2680.0000 SFT
(PTL071)	AEDC VA-422[LA-57]. CRB/ET VRIGHT SRB	.200	1.760	.750	.000	SPCE 2680.0000 SFT
(PTL219)	AEDC VA-422[LA-57]. CRB/ET VRIGHT SRB	.200	1.760	1.500	.000	SPCE 2680.0000 SFT
(PTL221)	AEDC VA-422[LA-57]. CRB/ET VRIGHT SRB	.200	1.760	1.500	.000	SPCE 2680.0000 SFT



EFFECT OF ONE SRB AND SRB PLUME ON Q/ET CHARACT. (POSITION 2)  
(MACH = 4.50)

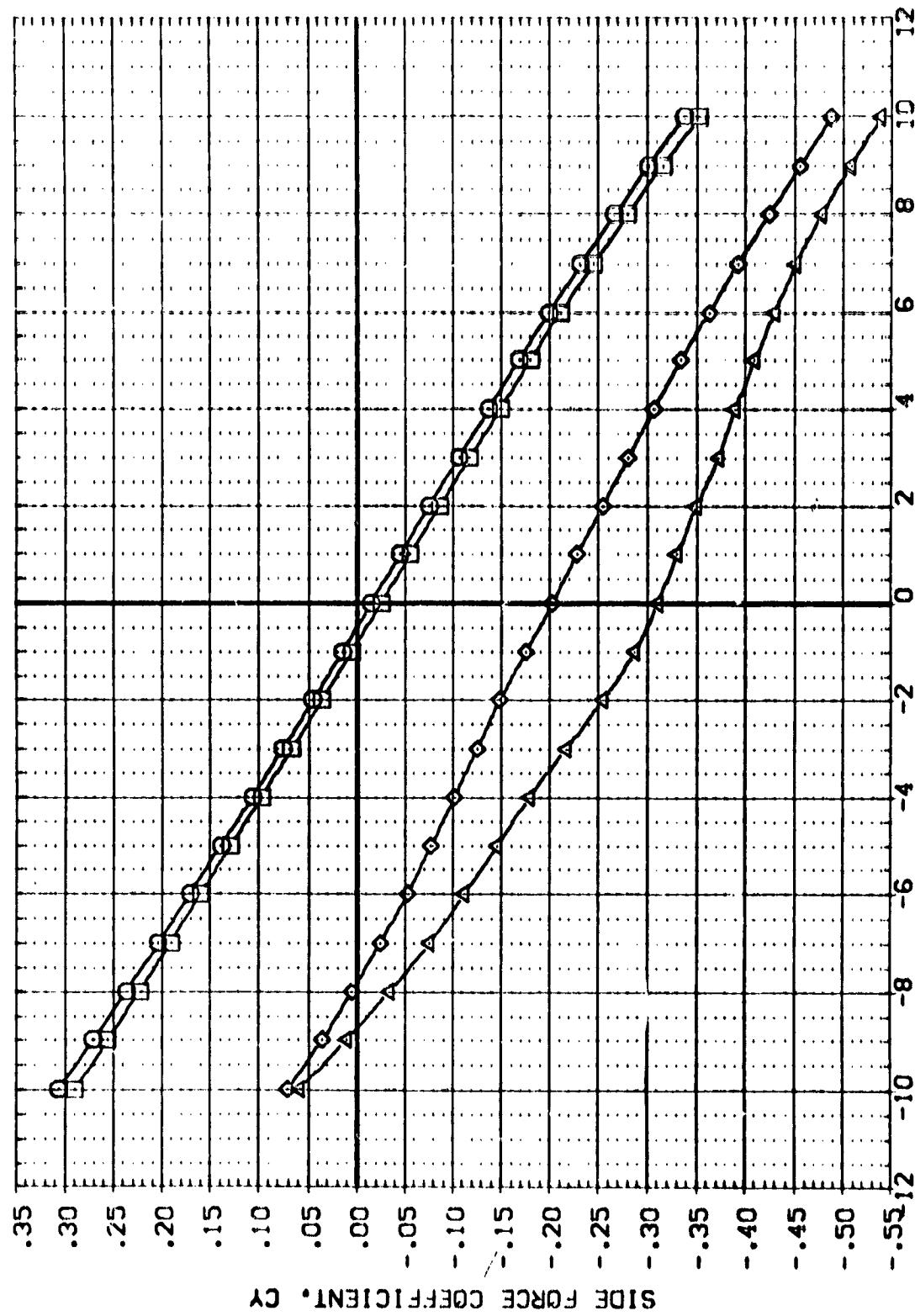
DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
RTLC011	AEDC	VA-4221 (A-571). ISOLATED GRISET
RTLC017	AEDC	VA-4221 (A-571). GRISET VRIGHT SRB
RTLC019	AEDC	VA-4221 (A-571). GRISET VRIGHT SRB
RTLC021	AEDC	VA-4221 (A-571). GRISET VRIGHT SRB



## EFFECT OF ONE SRB AND SRB PLUME ON G/E/T CHARACT. (P3SIT1E, 2)

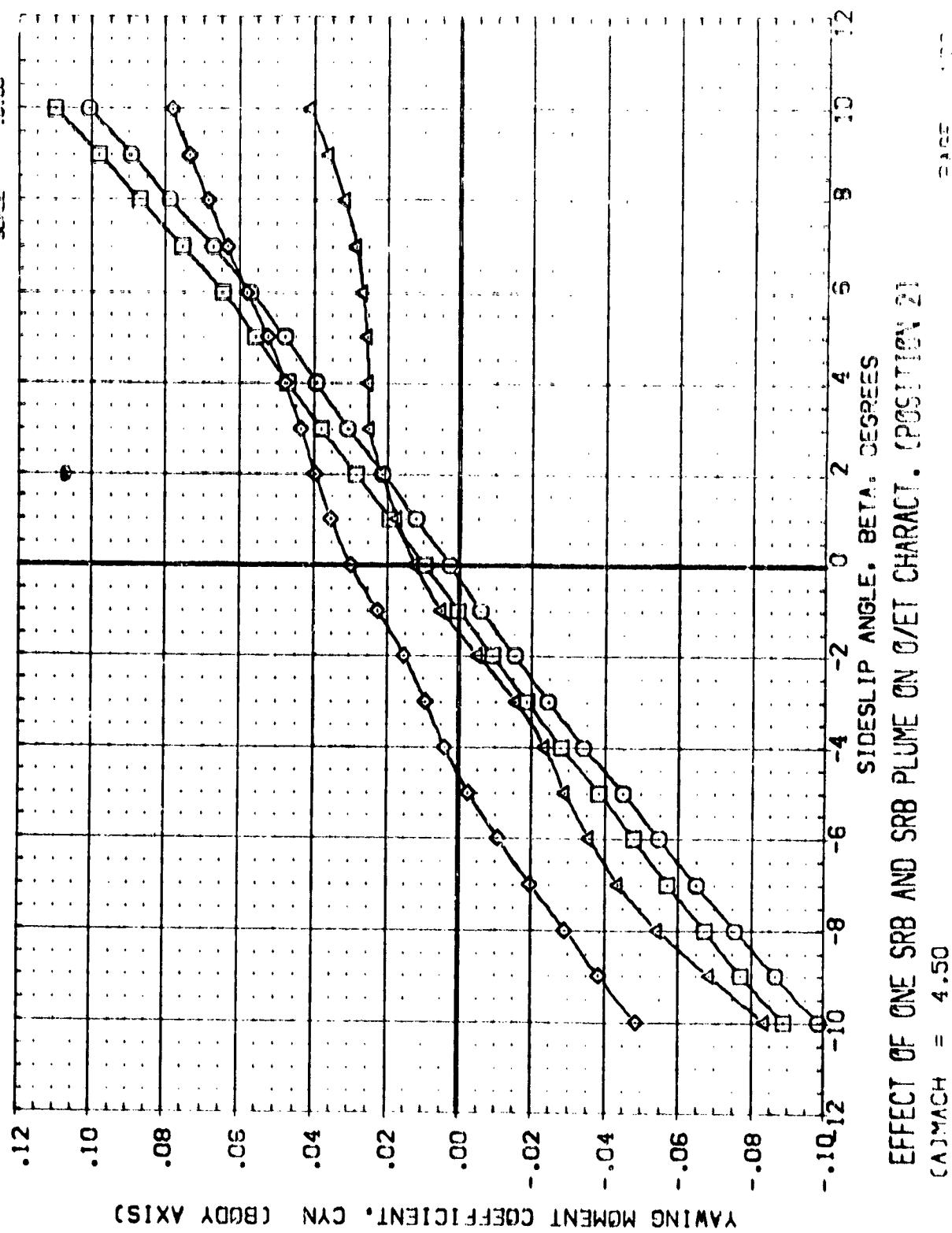
$$(\text{Ca})_{\text{HCl}} = 4.50$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	RN/L	PT-JET	ALPHA	SIDE FORCE COEFFICIENT, CY
ATL-002	AEDC VA-422 (A-57) ISOLATED SRB/ET	.200	1.780	.000	.000	.350
ATL-C18	AEDC VA-422 (A-57) SRB/ET W/RIGHT SRB	.200	1.780	.000	.000	.350
ATL-C21	AEDC VA-422 (A-57) SRB/ET W/RIGHT SRB	.200	1.780	.000	.000	.350
ATL-C22	AEDC VA-422 (A-57) SRB/ET W/RIGHT SRB	.200	1.780	.000	.000	.350

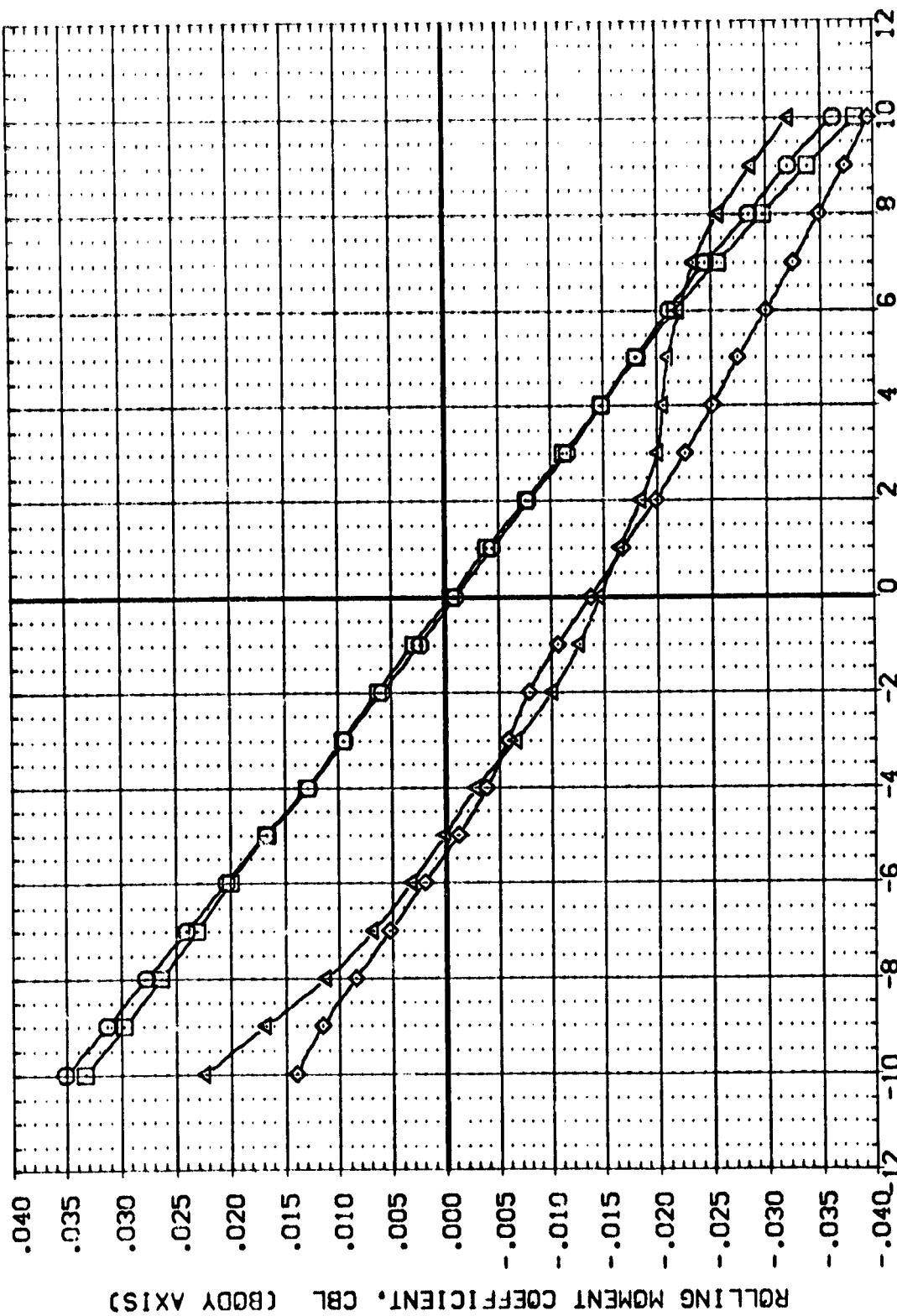


EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHART. (POSITION 2)  
 $C_{AMACH} = 4.50$

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
[CRTL002]	AEDC VA-422 [IA-57]	ISOLATED GRB
[CRTL018]	AEDC VA-422 [IA-57]	CRENET WRIGHT
[CRTL020]	AEDC VA-422 [IA-57]	CRENET WRIGHT
[CRTL022]	AEDC VA-422 [IA-57]	CRENET WRIGHT



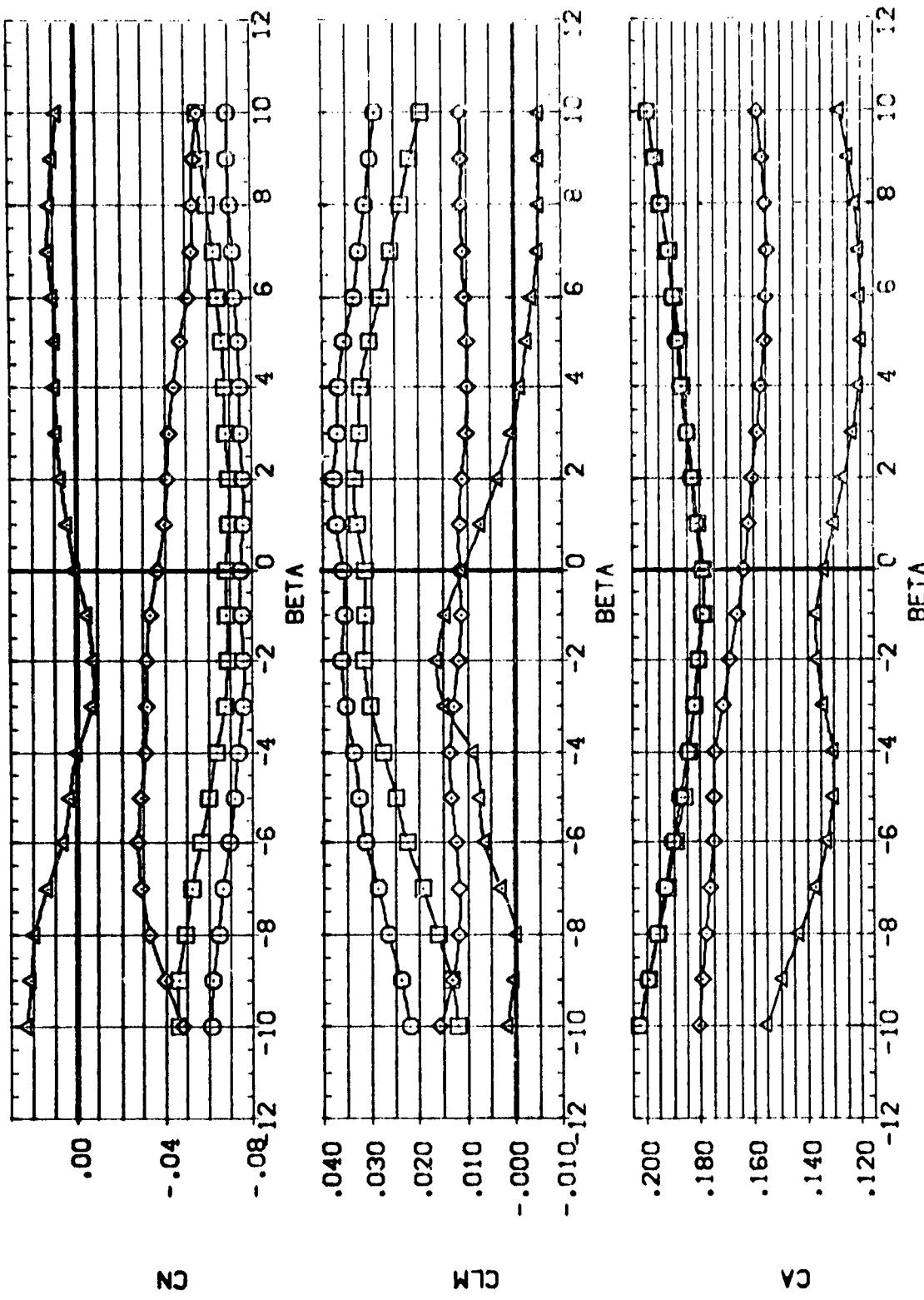
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [RTL\_002] AEDC VA-422[IA-57]. ISOLATED CRB/ET  
 [RTL\_018] AEDC VA-422[IA-57]. CRB/ET V/RIGHT SRB  
 [RTL\_020] AEDC VA-422[IA-57]. CRB/ET V/RIGHT SRB  
 [RTL\_022] AEDC VA-422[IA-57]. CRB/ET V/RIGHT SRB



EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHART. (POSITION 2)  
 $(\text{MACH}) = 4.50$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF.	SC. FT.
[RTL002]	AEDC VA-422 [A-57]. ISOLATED SRB/ET	.200	1.760
[RTL018]	AEDC VA-422 [A-57]. ORB/ET V/RIGHT SRB	.200	1.760 .000
[RTL020]	AEDC VA-422 [A-57]. ORB/ET V/RIGHT SRB	.200	1.760 .750 .000
[RTL022]	AEDC VA-422 [A-57]. ORB/ET V/RIGHT SRB	.200	1.760 1500 .200

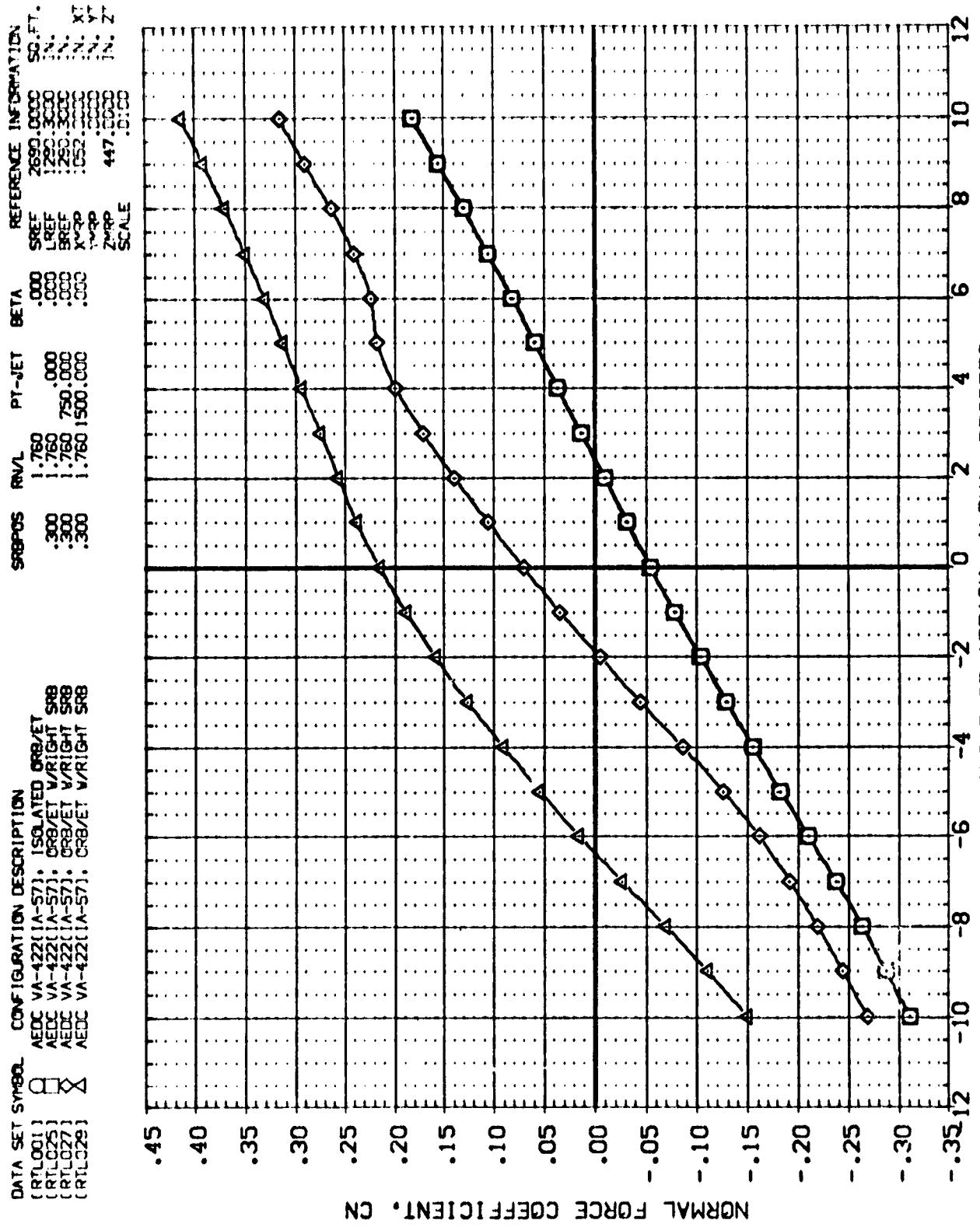
SRBPOS	RNL	PT-JET	ALPHA	REFERENCE INFORMATION
			.000	SRBREF 2690 .2000
			.000	LREF 1280 .3000
			.000	BREF 1252 .3000
			.000	XSRP .0000
			.000	YSRP .0000
			.000	ZSRP .0000
			.447	N. Z
			.0100	SCALE



EFFECT OF ONE SRB AND SRB PLUME ON O/ET CHARACT. (POSITION 2)  
 $(\text{A})_{\text{MACH}} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL001)	AEDC VA-422 [(A-57)]	ISOLATED SRB/ET
(RTL025)	AEDC VA-422 [(A-57)]	CRB/ET W/RIGHT SRB
(RTL027)	AEDC VA-422 [(A-57)]	CRB/ET V/RIGHT SRB
(RTL029)	AEDC VA-422 [(A-57)]	CRB/ET W/RIGHT SRB

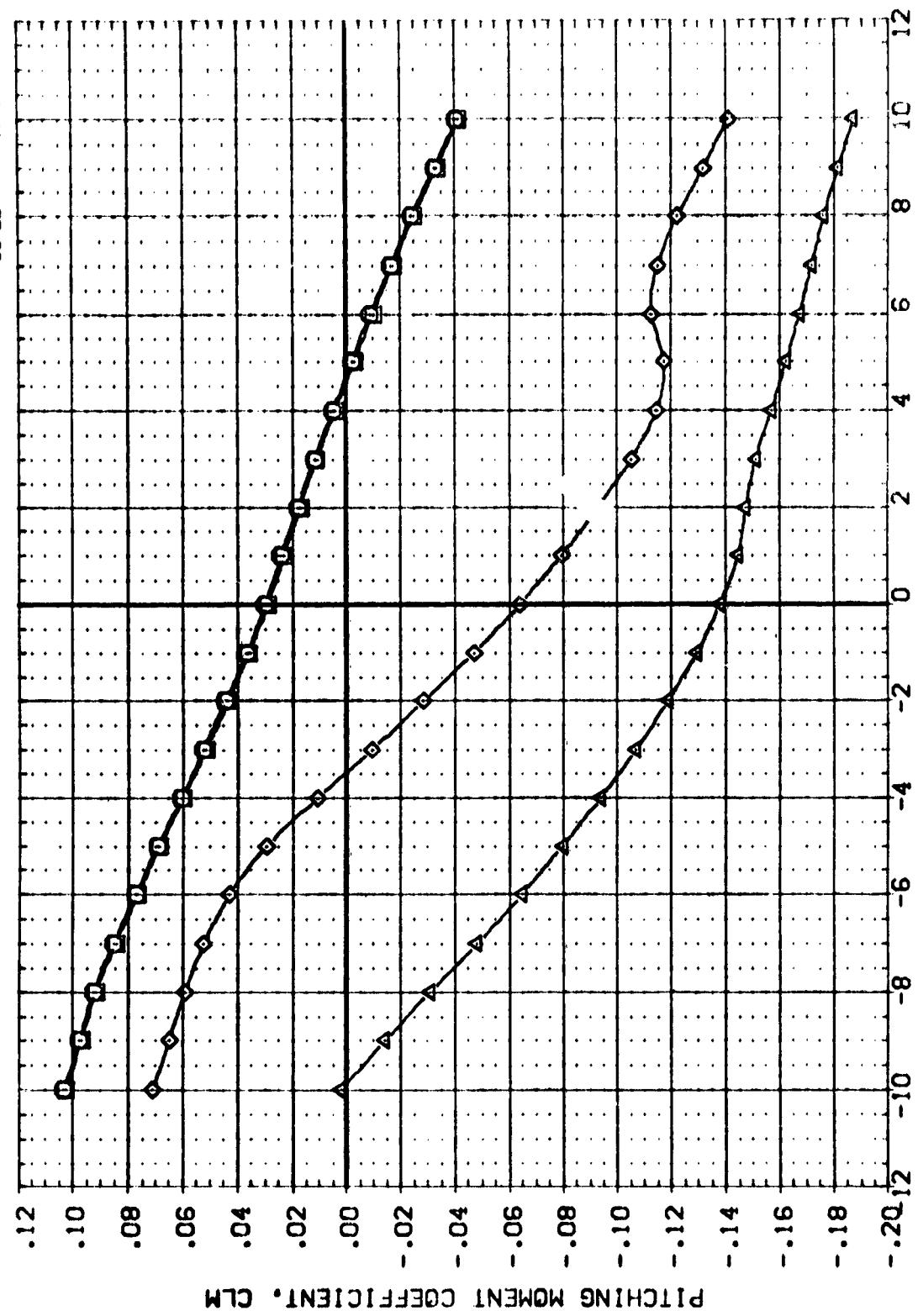


EFFECT OF ONE SRB AND SRB PLUME ON O/ET CHARACT. (POSITION 3)

(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTLOC1) AEDC VA-422(A-57). ISOLATED SRB/ET  
 (RTLOC2) AEDC VA-422(A-57). ORB/ET V/RIGHT SRB  
 (RTLOC3) AEDC VA-422(A-57). ORB/ET V/RIGHT SRB  
 (RTLOC4) AEDC VA-422(A-57). ORB/ET V/RIGHT SRB

SUPER REFERENCE INFORMATION  
 SREF 2690.0000 SOFT.  
 LREF 1290.3000  
 BREF 1260.3000  
 XRP 1052.0000  
 YRP .0000  
 ZRP 447.0000  
 SCALE .0000



EFFECT OF ONE SRB AND SRB PLUME ON O/ET CHARACT. (POSITION 3)  
 (MACH = 4.50)

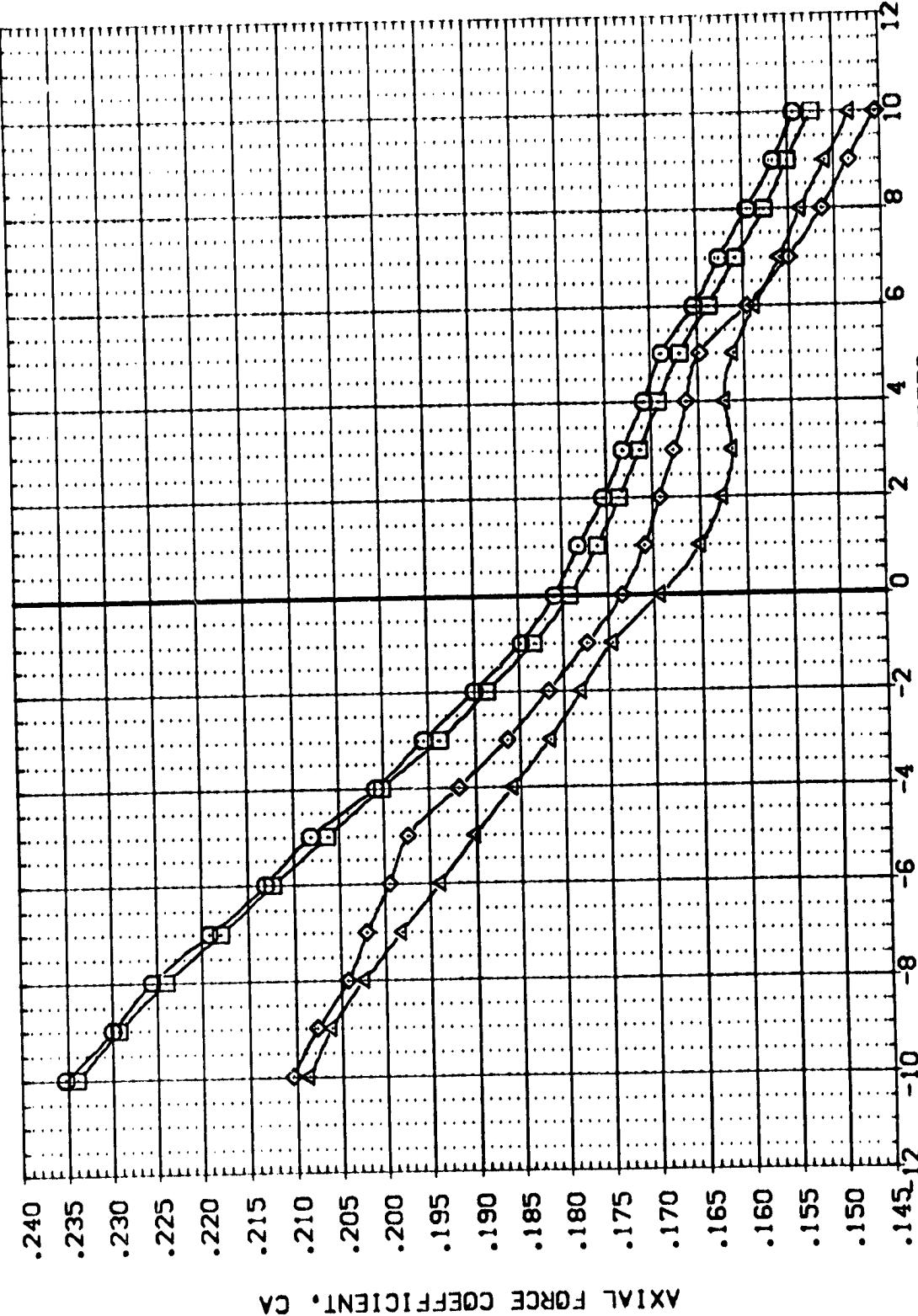
PAGE 74

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RT-001]	○	AEDC VA-422 [IA-57]; ISOLATED SRB
[RT-025]	□	AEDC VA-422 [IA-57]; CRB/ET VRIGHT SRB
[RT-027]	×	AEDC VA-422 [IA-57]; CRB/ET VRIGHT SRB
[RTLC29]	△	AEDC VA-422 [IA-57]; CRB/ET VRIGHT SRB

## REFERENCE INFORMATION

SRREF	2690.0000	SC. FT.
LREF	1290.3000	IN.
BREF	1290.3000	IN.
XREF	1352.0000	IN.
YREF	1352.0000	IN.
ZREF	447.0000	IN.
SCALE	.312	



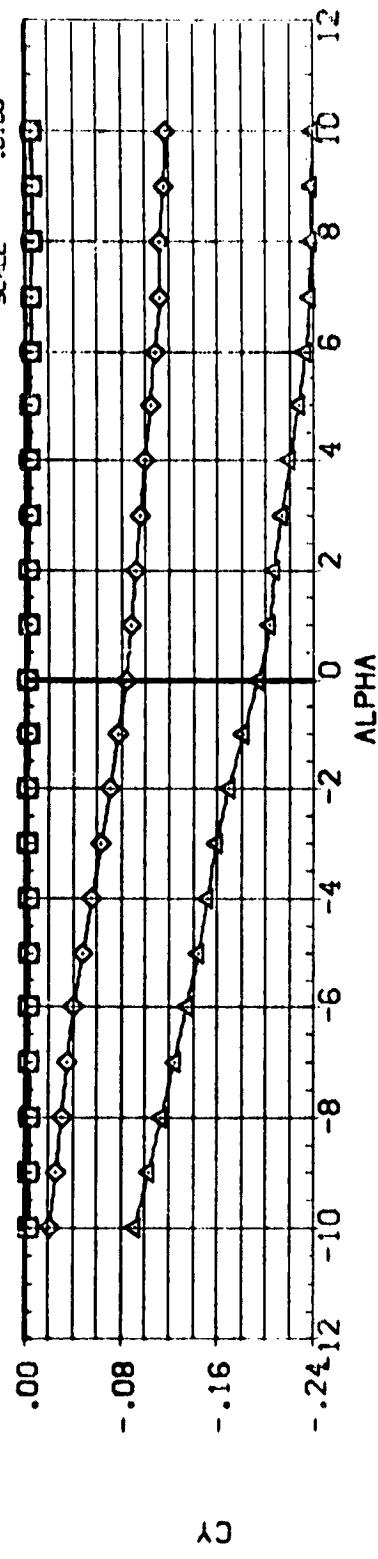
EFFECT OF ONE SRB AND SRB PLUME ON O/ET CHRACT. (POSITION 3)

(A)MACH = 4.50

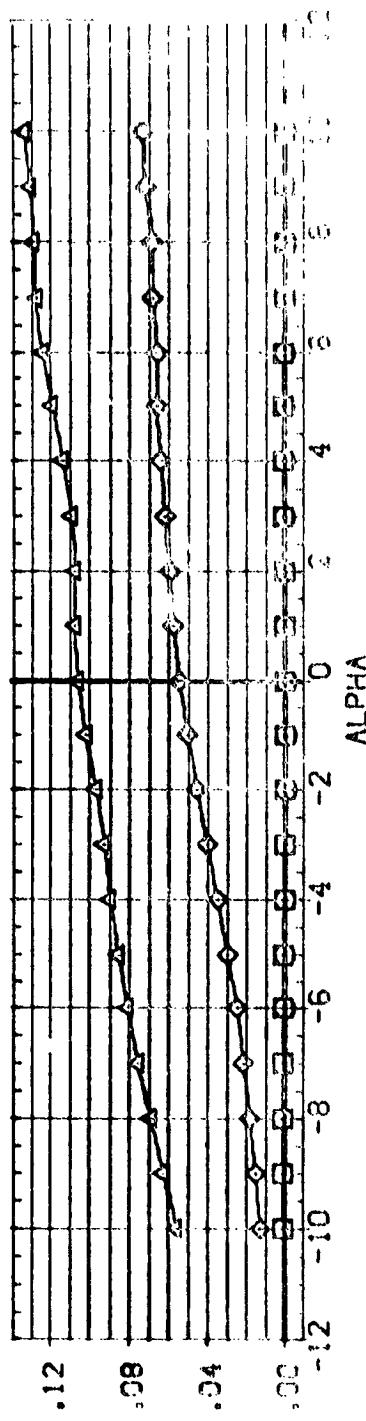
DATA SET SNAME: CRTL001

CONFIGURATION DESCRIPTION:  
AEDC VA-42211A-571; ISOLATED SRB/ET  
AEDC VA-42211A-571; ORBIT/ET SRB  
AEDC VA-42211A-571; ORBIT/ET SRB  
AEDC VA-42211A-571; SRB/ET SRB

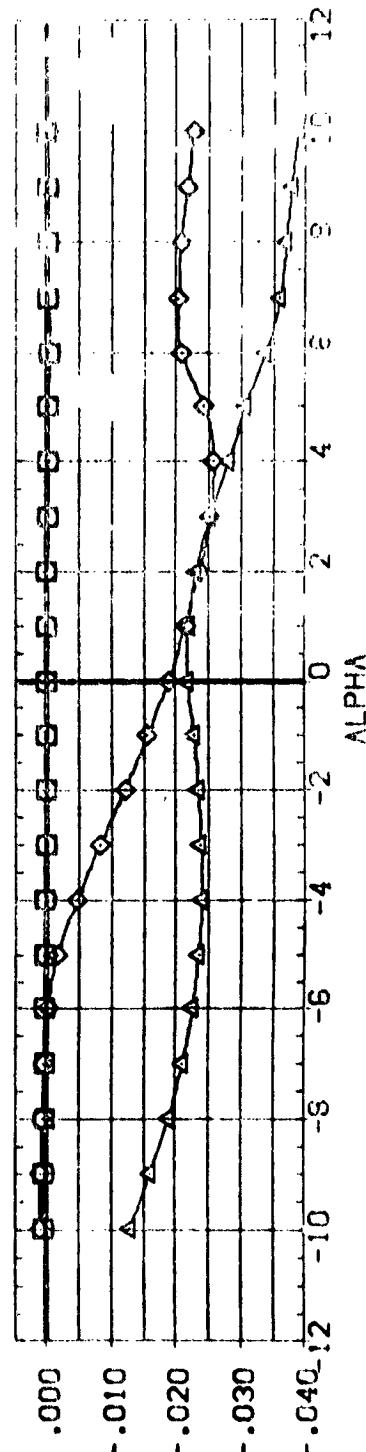
SRBPOS	RNL	PT-JET	BETA	REFERENCE INFORMATION
.300	.760	.000	.000	SREF 2650.000 SC.FT.
.300	.760	.750	.000	LREF 1250.300 IN.YT
.300	.760	.750	.000	BREF 1250.300 IN.YT
.300	.760	.150	.000	XREFP 1052.3000 IN.YT
.300	.760	.150	.000	YREFP 447.0000 IN.YT
				ZREFP 447.0000 IN.ZT
				SCALE .200



CY



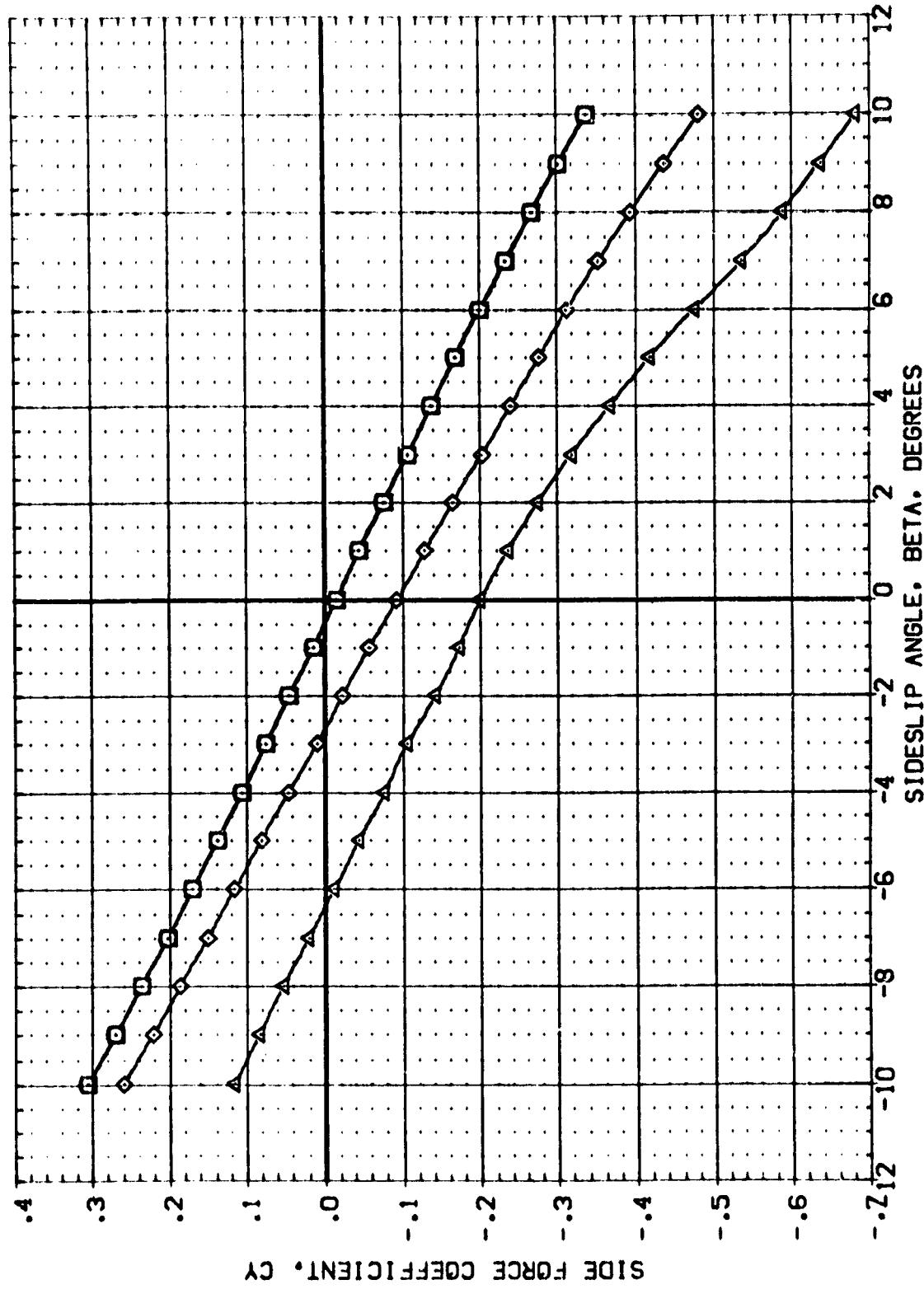
CYN



CBL

EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHARACTER. (POSITION 2)  
(AJMACH = 4.50)

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RTL002) □ AEDC VA-422(A-57), ISOLATED SRB/ET  
 (RTL026) □ AEDC VA-422(A-57), CRB/ET WRIGHT SRB  
 (RTL028) △ AEDC VA-422(A-57), CRB/ET WRIGHT SRB  
 (RTL030) ▲ AEDC VA-422(A-57), CRB/ET WRIGHT SRB

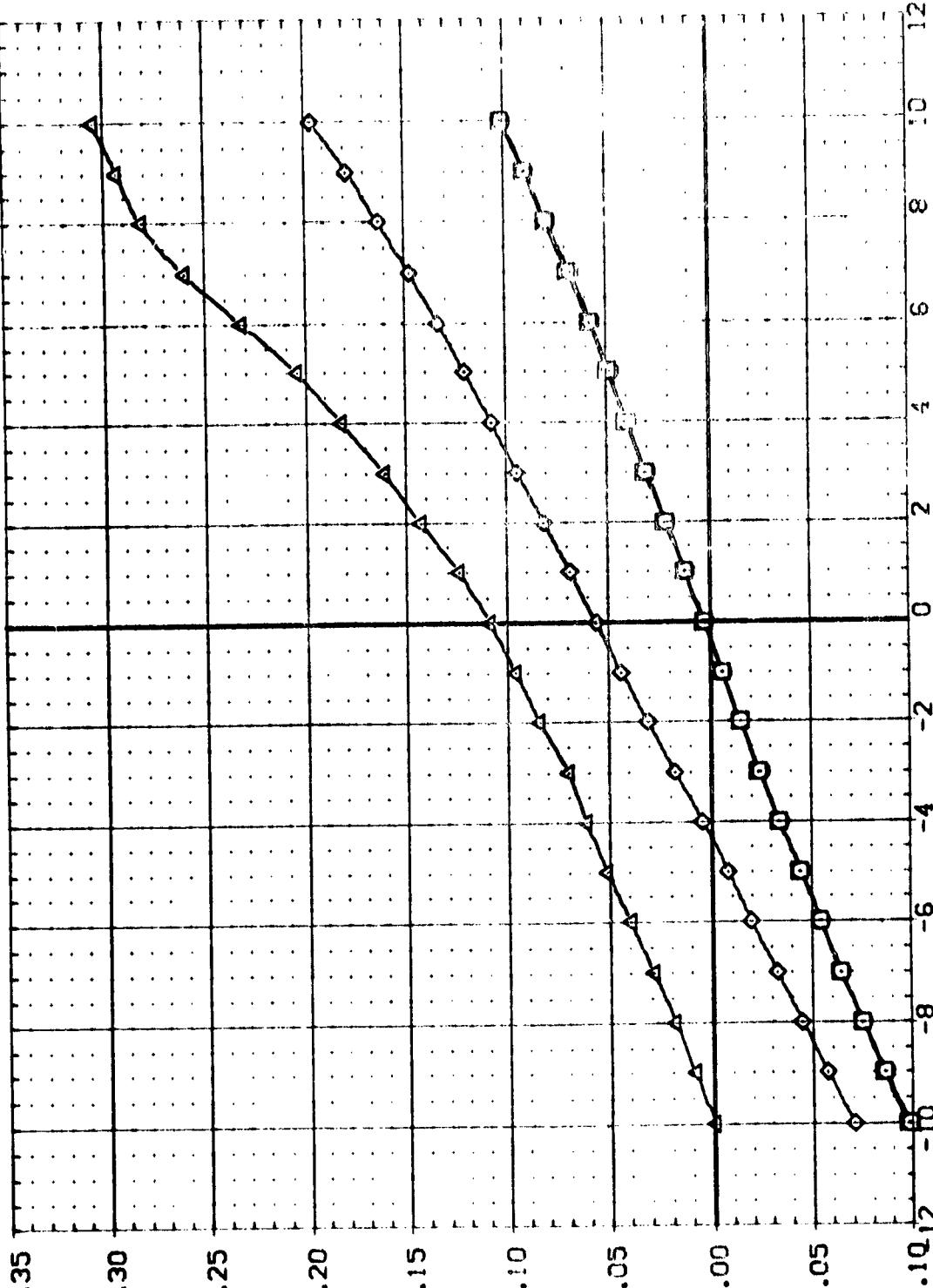


EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHARACT. (POSITION 3)  
 $(A)MACH = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

RTL002	AEDC VA-422 [A-57]. ISOLATED SRB/ET
RTL026	AEDC VA-422 [A-57]. CRJB/ET VR/RIGHT SRB
RTL028	AEDC VA-422 [A-57]. CRJB/ET VR/RIGHT SRB
RTL030	AEDC VA-422 [A-57]. CRJB/ET VR/RIGHT SRB

REFERENCE INFORMATION  
 SRPOS RNL PT-JET ALPHA SEFF SC. FT.  
 .300 1.760 .000 SEFF .2620.0000 4.5.  
 .300 1.760 .000 LSF .250.3222 4.5.  
 .300 1.760 .000 SEFF .250.3222 4.5.  
 .300 1.760 .000 XSF .152.0000 4.5.  
 .300 1.760 .000 YSF .000.0000 4.5.  
 .300 1.760 .000 ZSF .447.0000 4.5.  
 SCALE .318

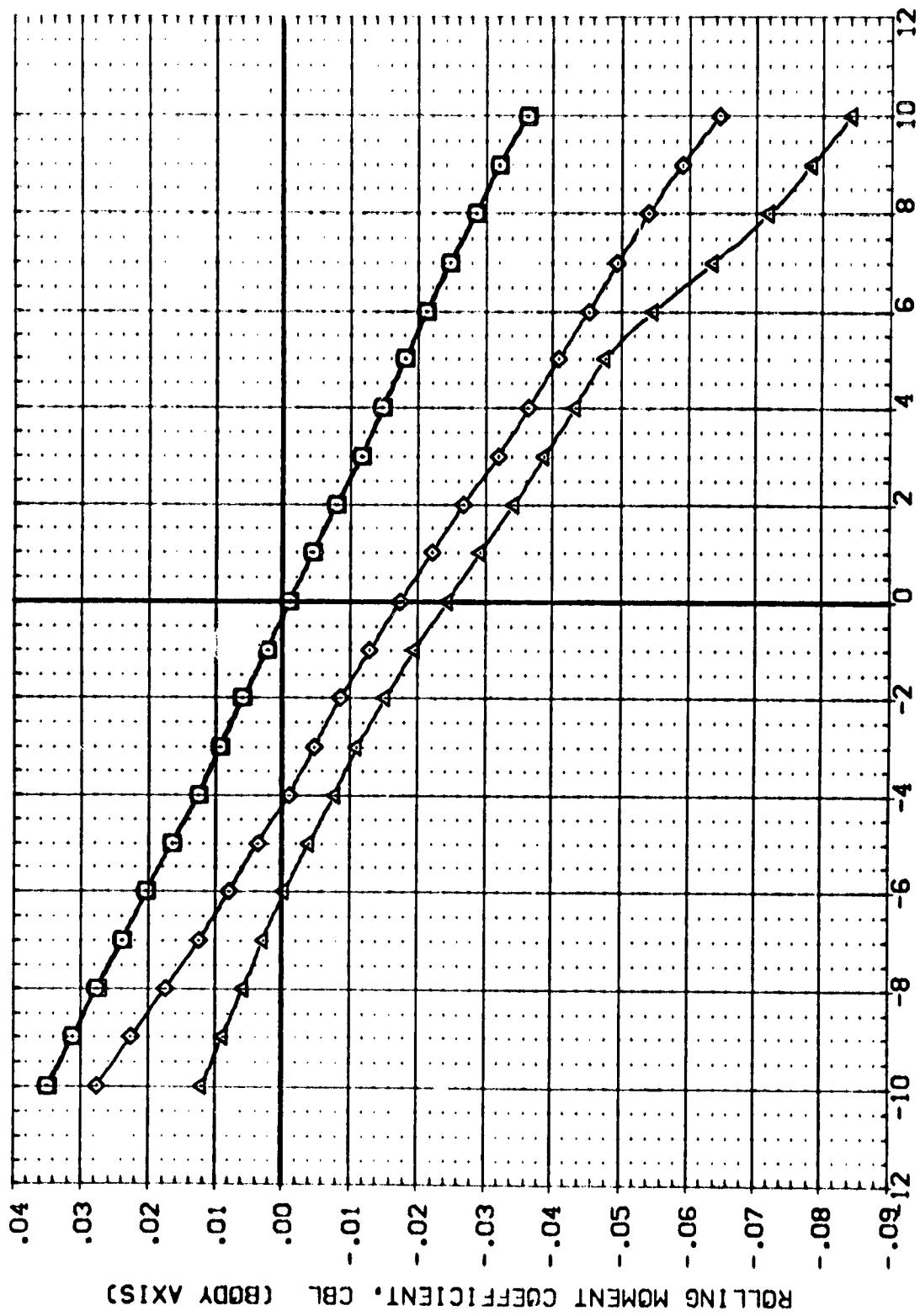


YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

EFFECT OF ONE SRB AND SRB PLUME ON C/ET CHARACTERISTICS  
 $C_{MACH} = 4.50$

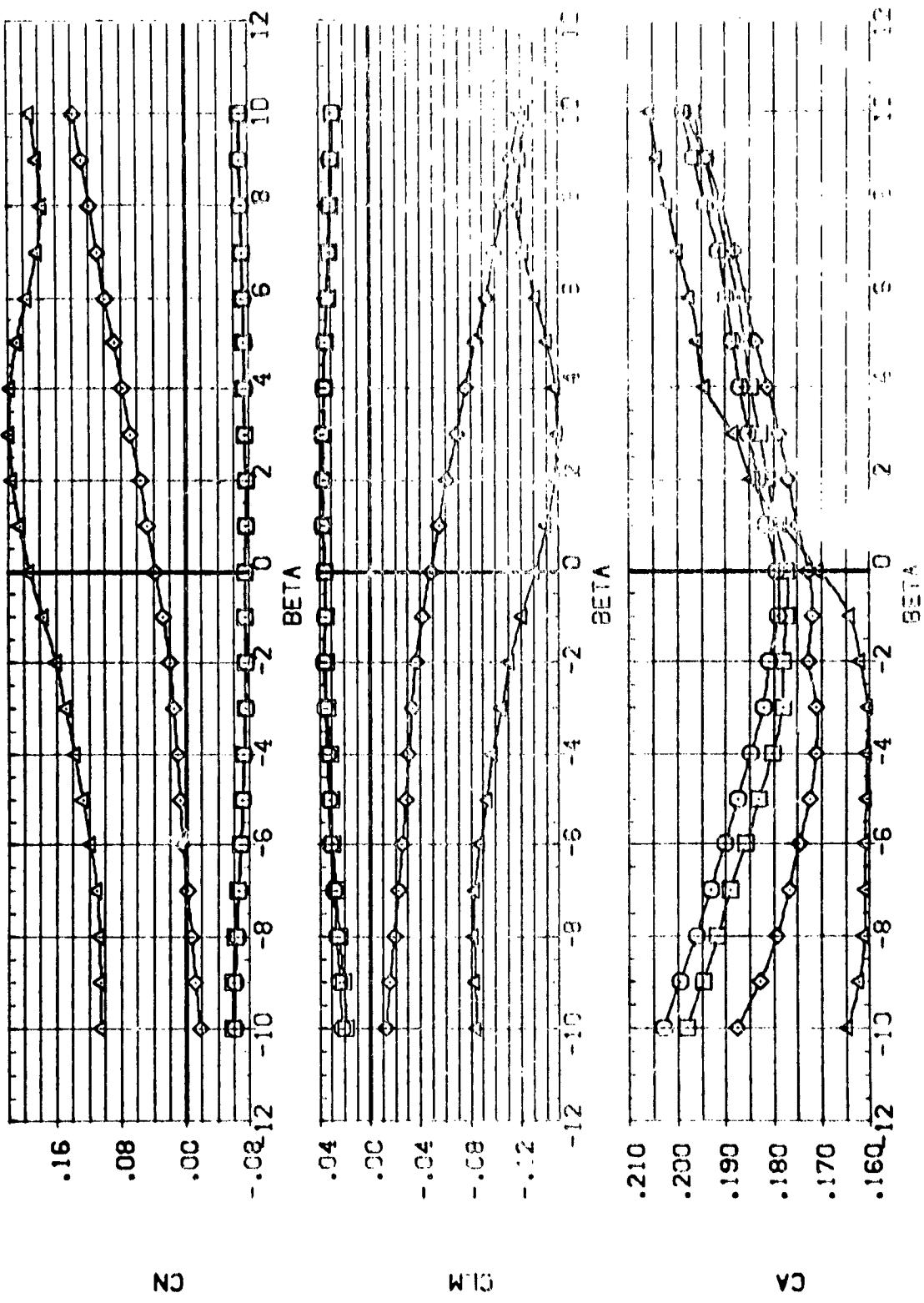
DATE 1/72

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SREF	REF	REFERENCE INFORMATION
[RTL002]	VA-422[IA-57], ISOLATED SRB/JET	.2690	.0000	SC, F.
AEDC	VA-422[IA-57]	.1260	.3000	
[RTL026]	SRB	.1260	.3000	
AEDC	VRIGHT SRB	.1260	.3000	
[RTL028]	ORB/ET VRIGHT SRB	.1260	.3000	
AEDC	VRIGHT SRB	.1260	.3000	
[RTL030]	ORB/ET VRIGHT SRB	.1520	.3000	X-12
AEDC	VA-422[IA-57]	.1520	.3000	
		.447	.3000	Z-12
		447	.3000	SCALE

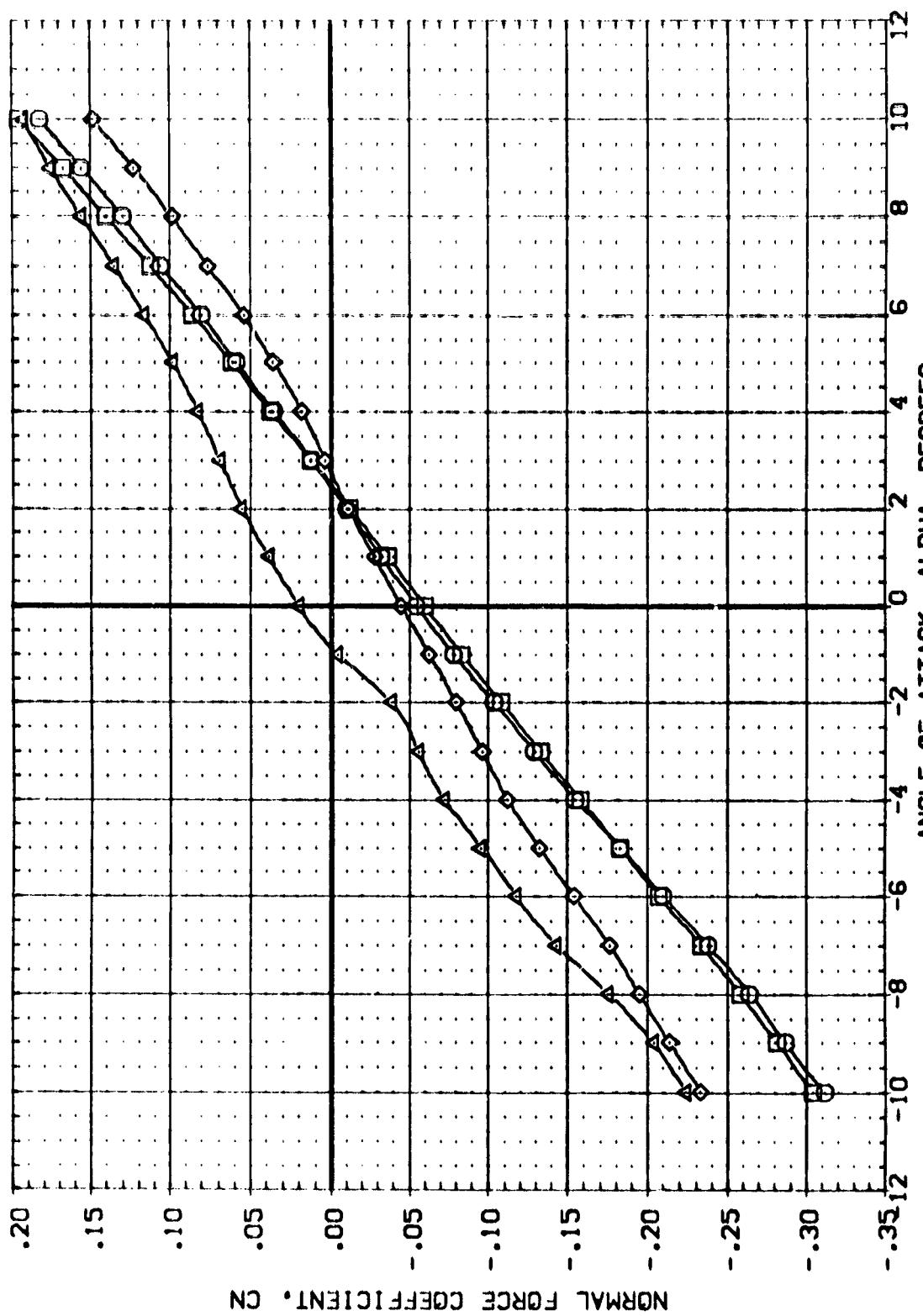


EFFECT OF ONE SRB AND SRB PLUME ON 0/ET CHARACT. (POSITION 3)  
 $(\text{A})\text{MACH} = 4.50$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION: ON
[RTL0002]	AEDC VA-422[VA-571]. ISOLATED
[RTL026]	AEDC VA-422[VA-571]. CSET
[RTL028]	AEDC VA-422[VA-571]. ORBIT
[RTL035]	AEDC VA-422[VA-571]. VSET



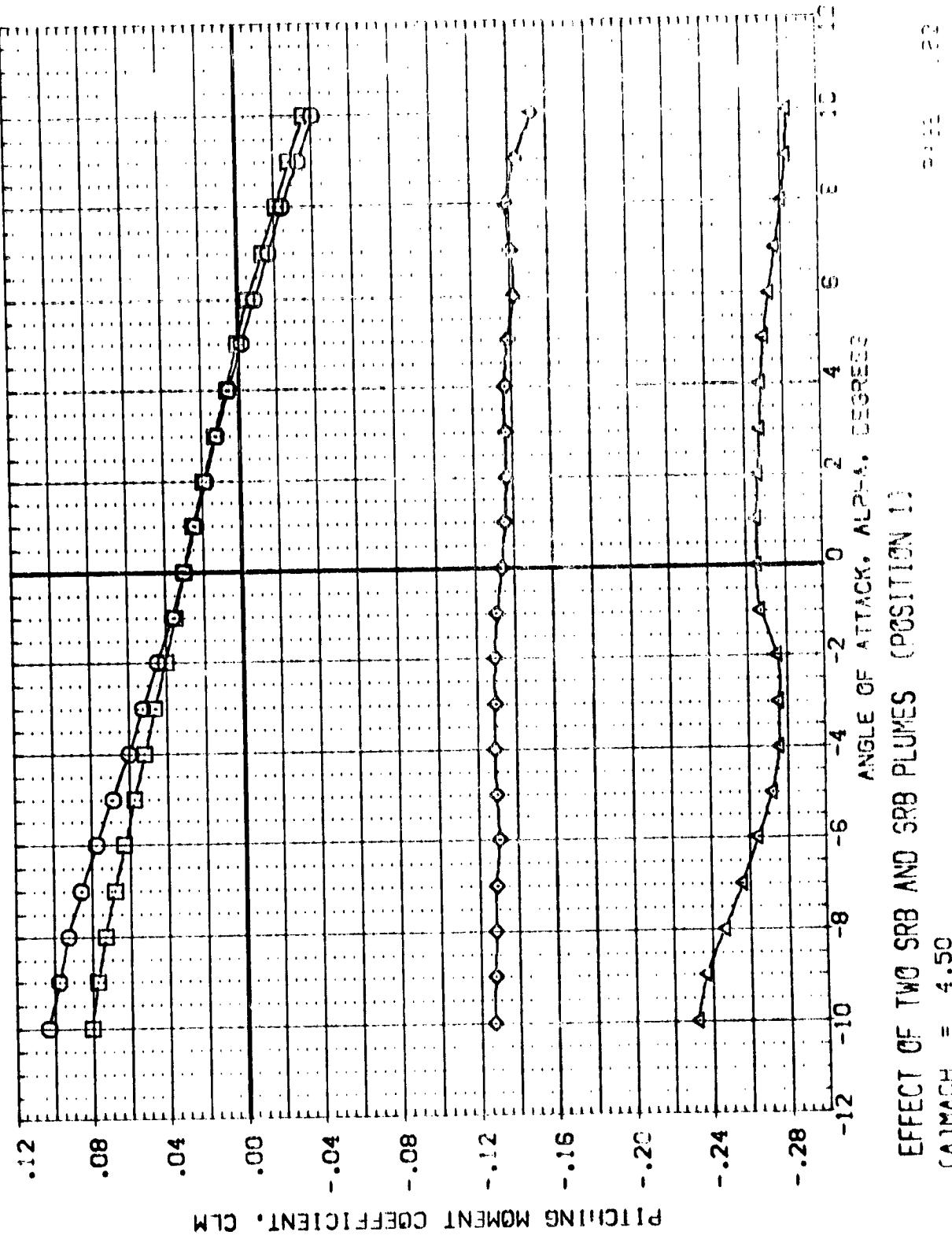
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	S8POS	R8L	PT-JET	BETA	REFERENCE INFORMATION
[RTLG31]	AEDC VA-4221[IA-57]. ISOLATED CR8/JET	1.100	1.760	.000	0.00	280.3000 50. FT.
[RTLG34]	AEDC VA-4221[IA-57]. ORB/JET W/BOTH SRB	1.100	1.760	.000	0.00	280.3000 50. FT.
[RTLG35]	AEDC VA-4221[IA-57]. CR8/JET W/BOTH SRB	1.100	1.760	.000	0.00	280.3000 50. FT.
[RTLG38]	AEDC VA-4221[IA-57]. CR8/E* W/BOTH SRB	1.100	1.760	.000	0.00	280.3000 50. FT.
						447.3000 50. FT.
						SCALE

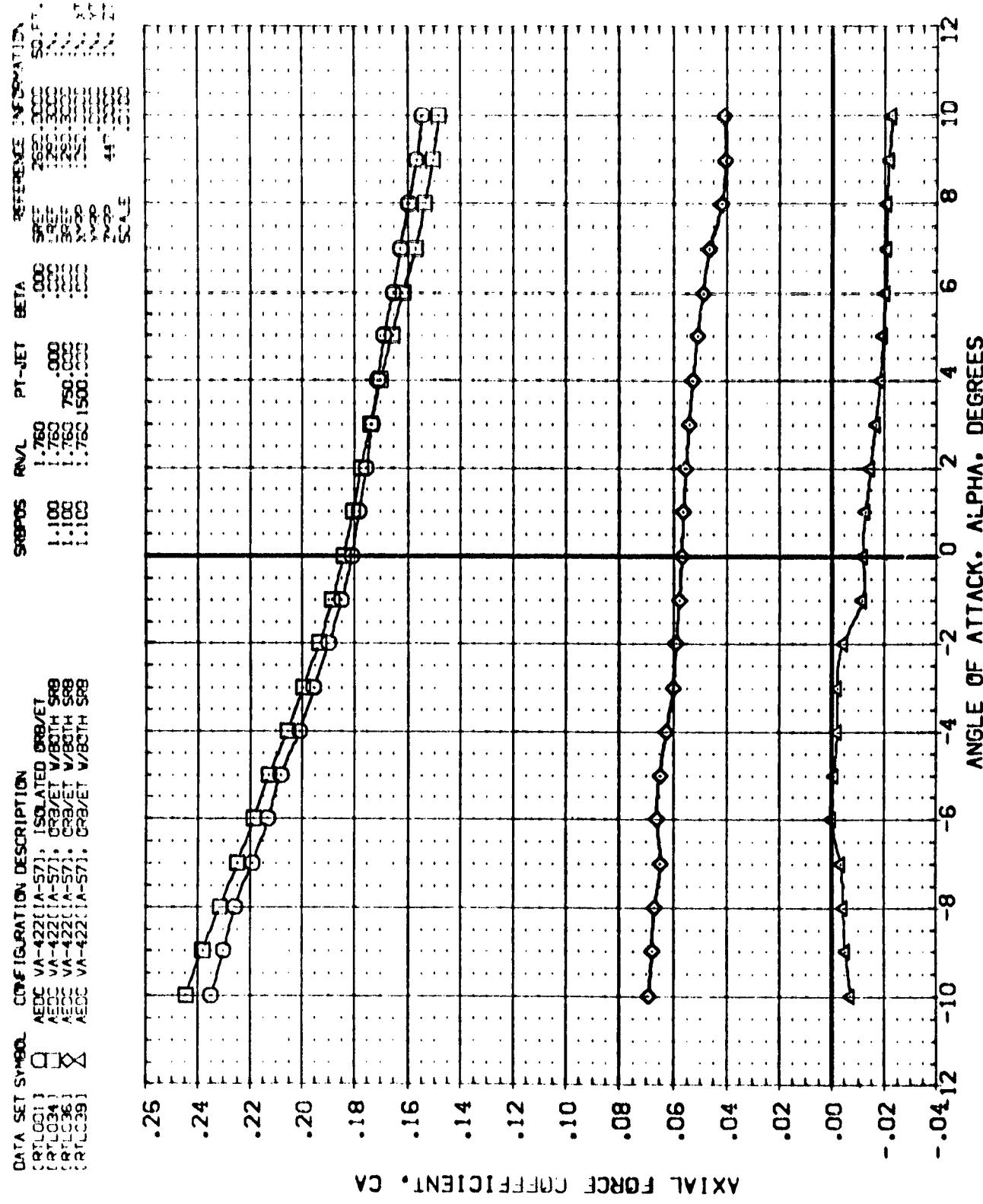


EFFECT OF TWO SRB AND SRB PLUMES (POSITION 1)

CA MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [RTLC00] [IA-571] ISOLATED SRB/ET  
 AECE VA-422[IA-571] GRAV/ET V/BOTH SRB  
 AECE VA-422[IA-571] GRB/ET V/BOTH SRB  
 AECE VA-422[IA-571] GRB/ET V/BOTH SRB  
 AECE VA-422[IA-571] GRB/ET V/BOTH SRB





## EFFECT OF TWO SRB AND SRB PLUMES (POSITION 1)

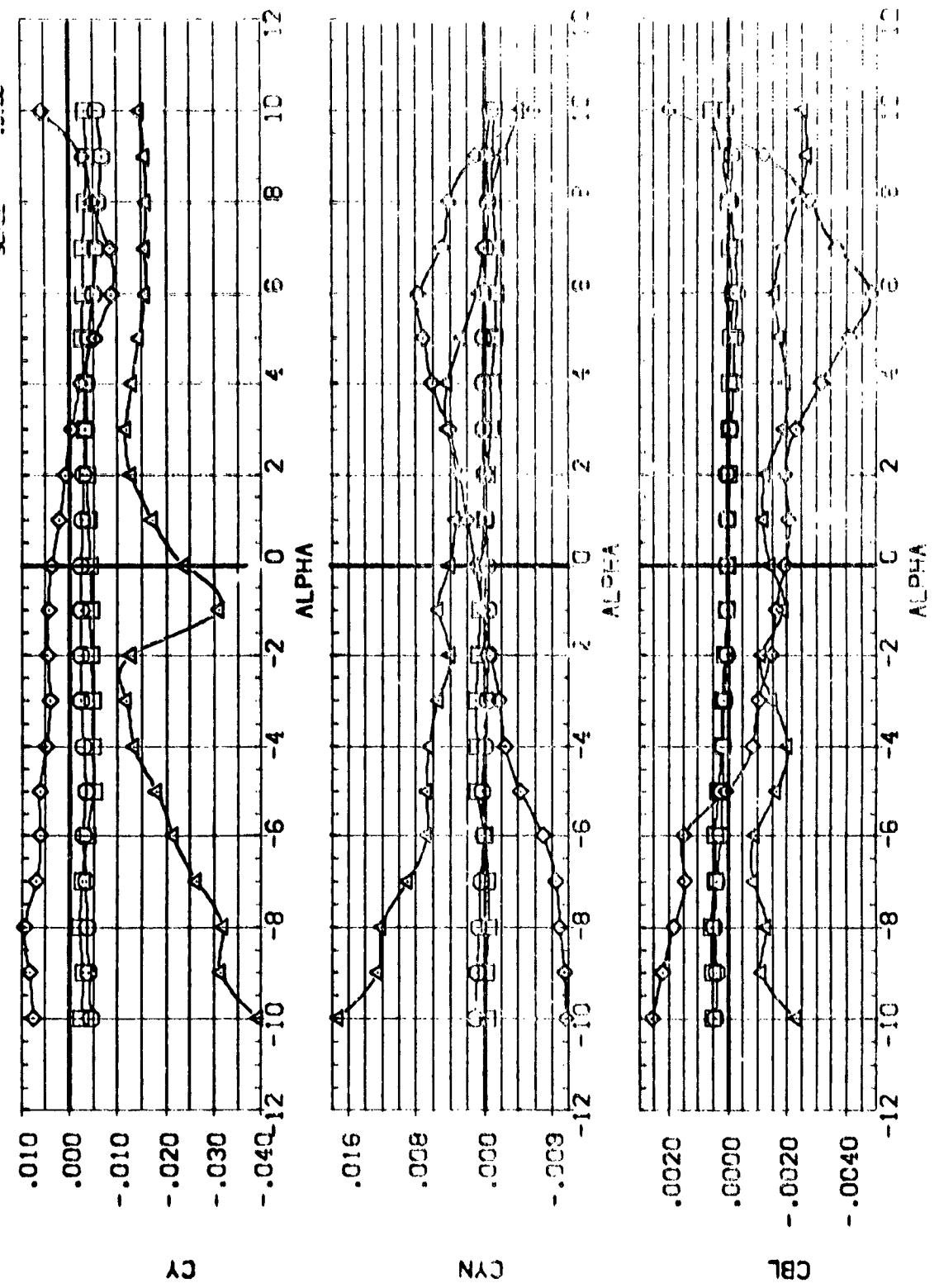
$$CAJMACH = 4.50$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL001)	AEDC VA-422(A-571)	ISOLATED SRB/ET
(RTL034)	AEDC VA-422(A-571)	GRB/ET V/BOTH SRB
(RTL035)	AEDC VA-422(A-571)	GRB/ET V/BOTH SRB
(RTL038)	AEDC VA-422(A-571)	GRB/ET V/BOTH SRB

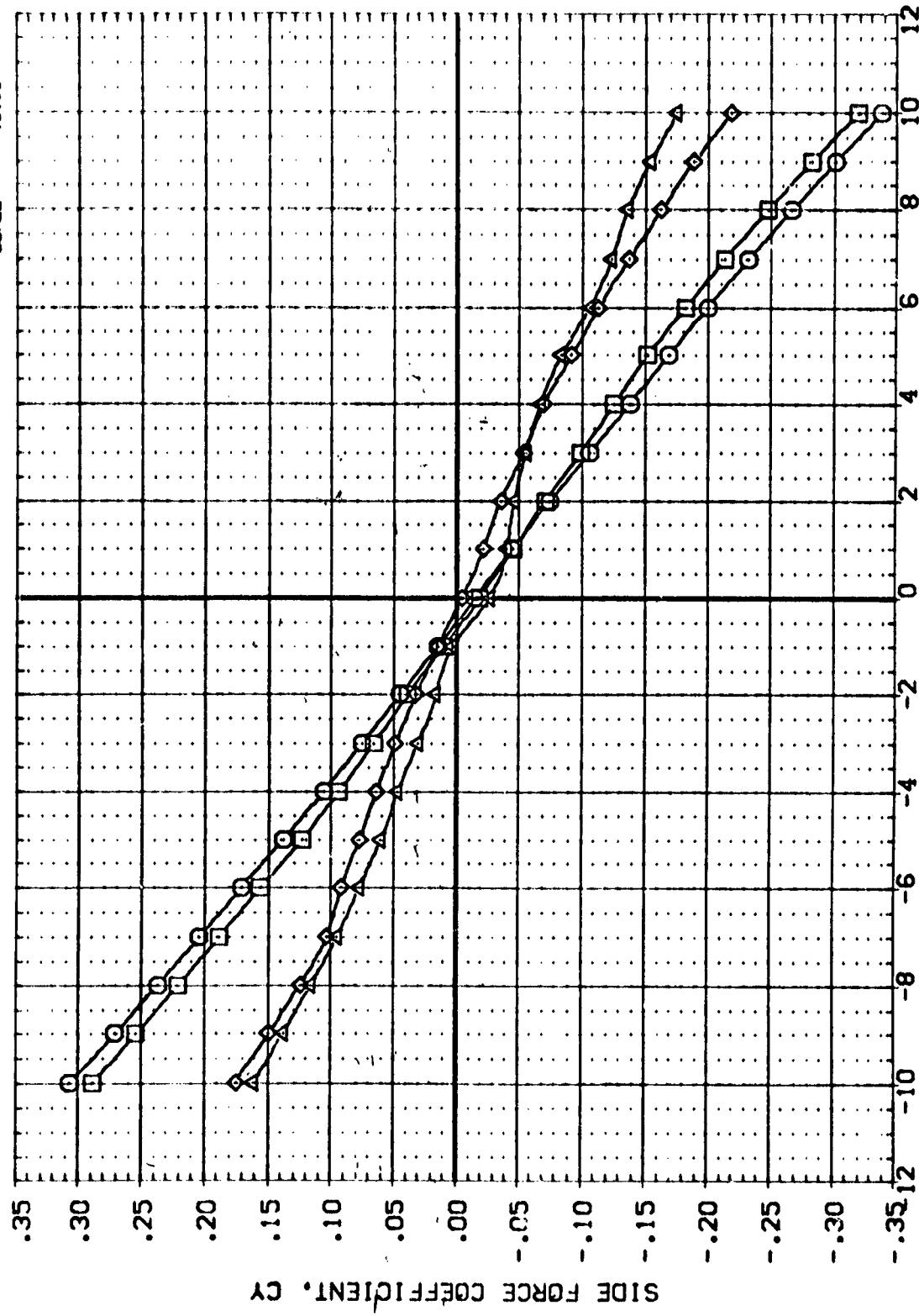
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL001)	AEDC VA-422(A-571)	ISOLATED SRB/ET
(RTL034)	AEDC VA-422(A-571)	GRB/ET V/BOTH SRB
(RTL035)	AEDC VA-422(A-571)	GRB/ET V/BOTH SRB
(RTL038)	AEDC VA-422(A-571)	GRB/ET V/BOTH SRB



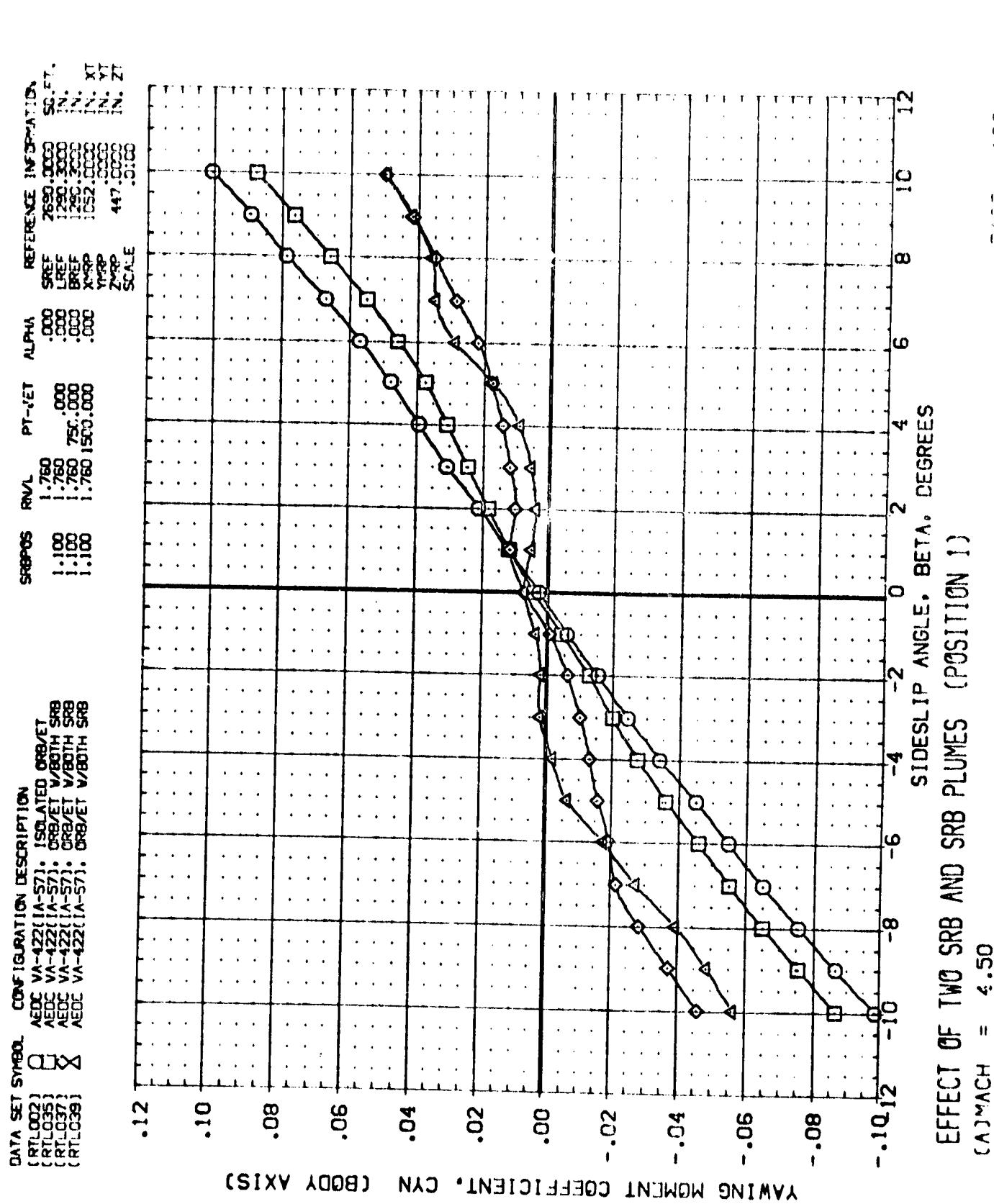
EFFECT OF TWO SRB AND SRB PLUMES POSITION  
MACH = 4.50

DATA SET SRB&A. CONFIGURATION DESCRIPTION  
 [RTL002] AEDC VA-422 [A-57]. ISOLATED SRB&ET  
 [RTL035] AEDC VA-422 [A-57]. QRB/ET V/BOTH SRB  
 [RTL037] AEDC VA-422 [A-57]. QRB/ET V/BOTH SRB  
 [RTL039] AEDC VA-422 [A-57]. QRB/ET V/BOTH SRB

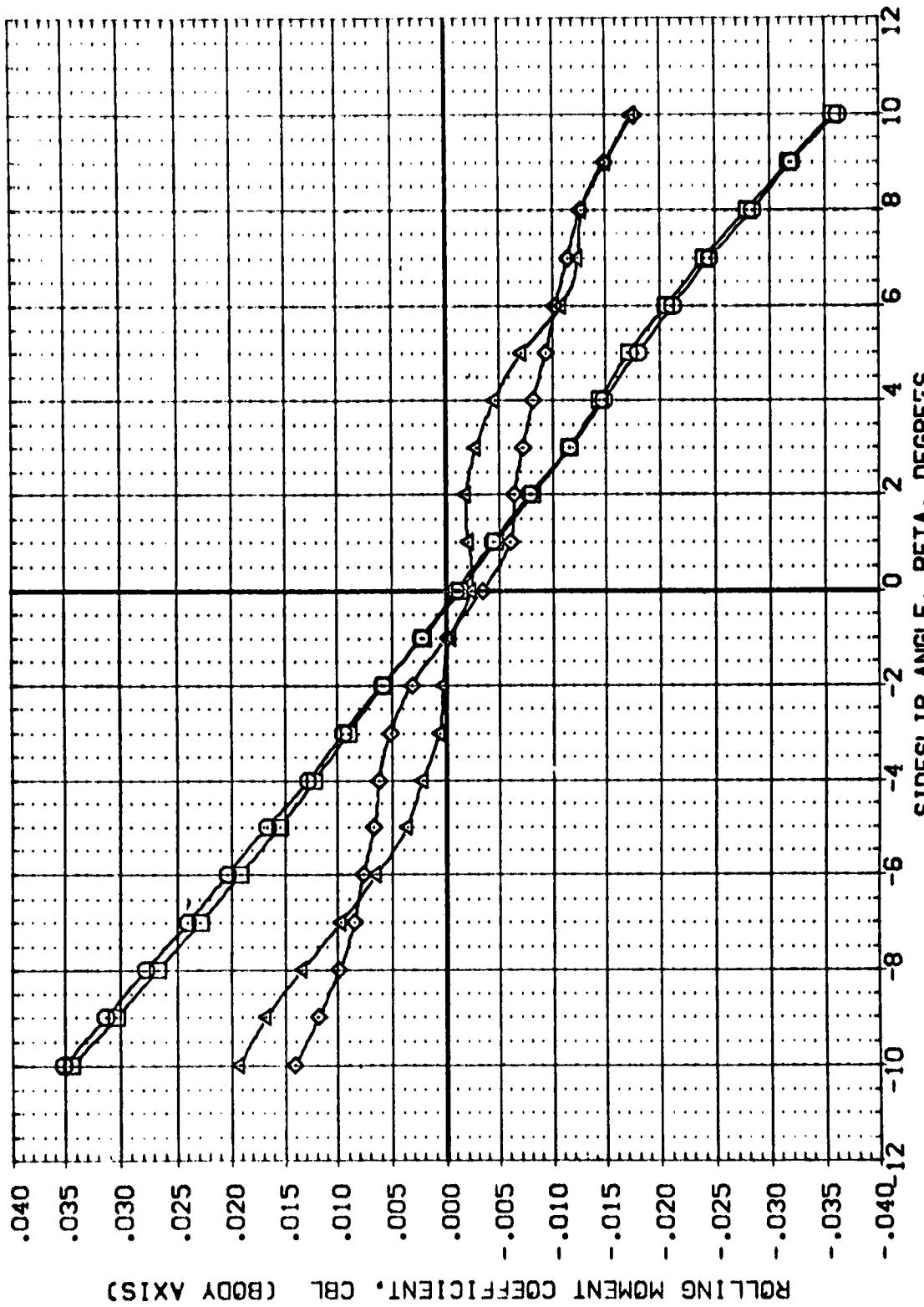


EFFECT OF TWO SRB AND SRB PLUMES (POSITION 1)

$(\alpha)_MACH = 4.50$



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RTL002)	AEDC VA-422[1A-57]. ISOLATED GRB/ET
(RTL035)	AEDC VA-422[1A-57]. GRB/ET V/BOTH SRB
(RTL059)	AEDC VA-422[1A-57]. GRB/ET V/BOTH SRB
(RTL079)	AEDC VA-422[1A-57]. GRB/ET V/BOTH SRB



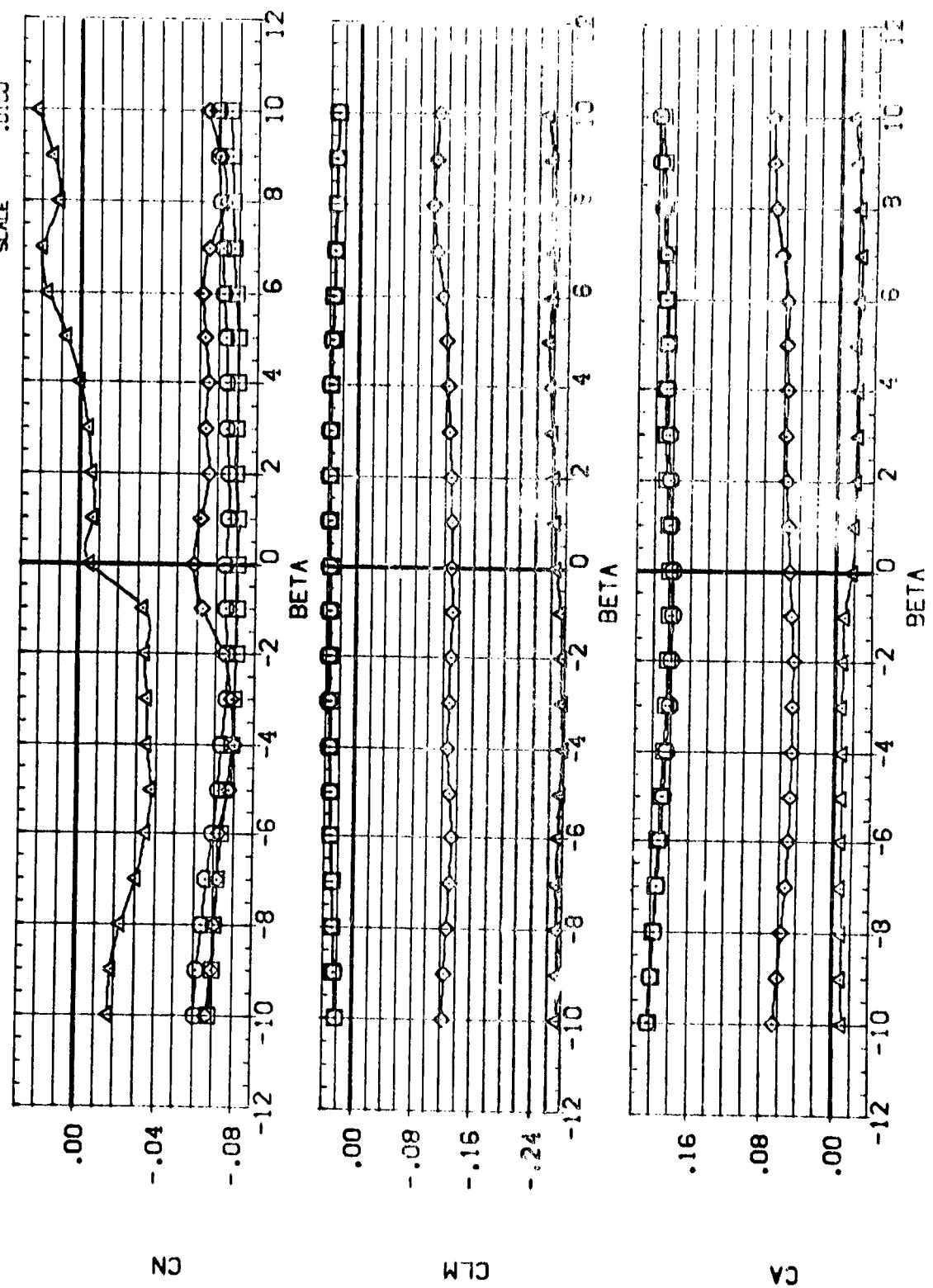
## EFFECT OF TWO SRB AND SRB PLUMES (POSITION 1)

$$(\Delta)_{\text{MACH}} = 4.50$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

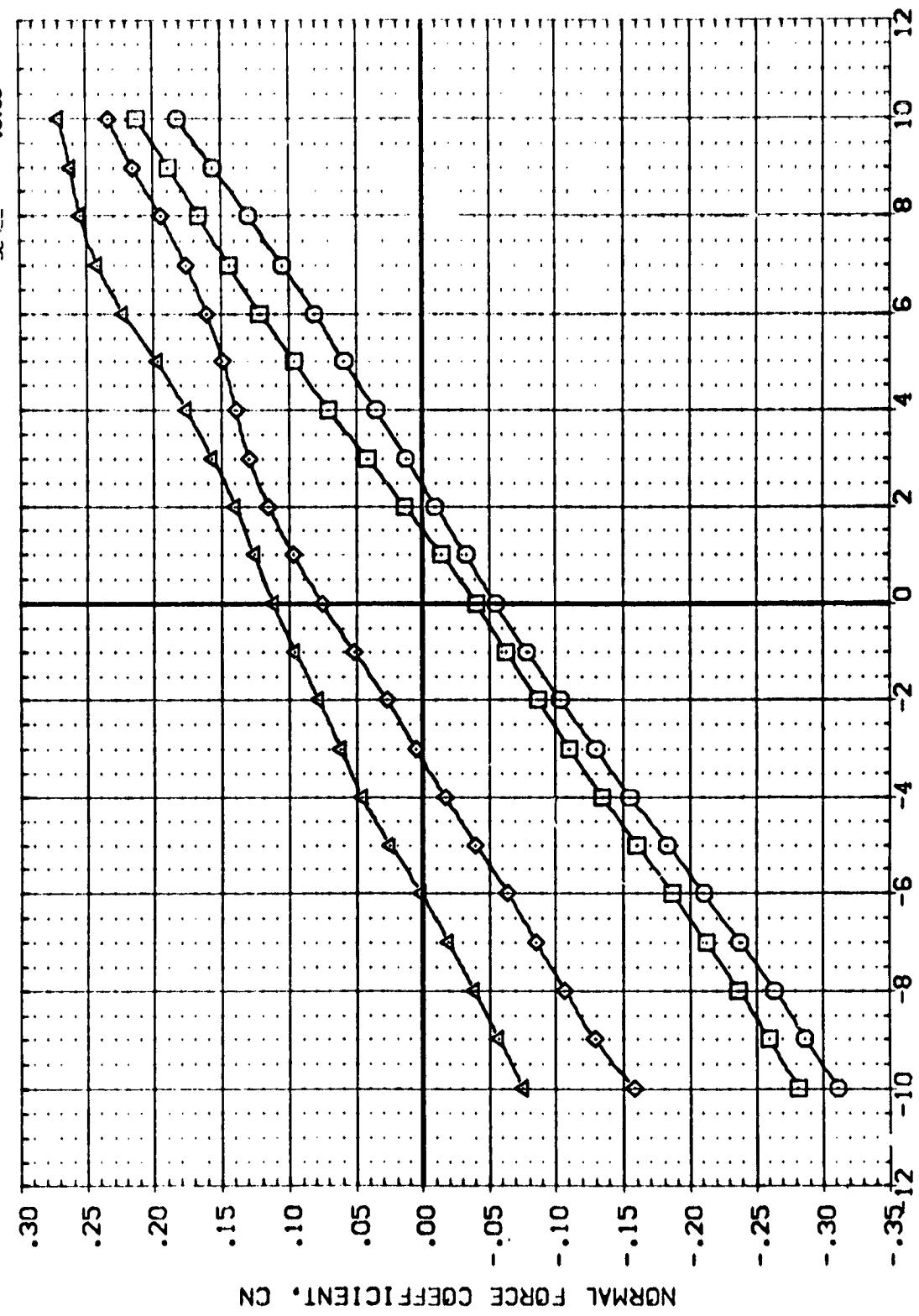
[RTL002]	○	AEDC VA-422[IA-57]. ISOLATED SRB
[RTL035]	□	AEDC VA-422[IA-57]. SRB/ET V/BOTH SRB
[RTL037]	×	AEDC VA-422[IA-57]. OR8/ET V/BOTH SRB
[RTL039]	△	AEDC VA-422[IA-57]. CR8/ET V/BOTH SRB

SRPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 1.100 1.760 .000 SREF 2680.0000 SC-F7.  
 1.100 1.760 .000 LREF 1280.3000 BREF 1280.3000  
 1.100 1.760 .000 X-FP 1052.0000 Y-FP 1052.0000 Z-FP 447.0000  
 SCALE .01



EFFECT OF TWO SRB AND SRB PLUMES (POSITION 1)  
 $(\text{A})\text{MACH} = 4.50$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	RNL	PT-JET	BETA	REFERENCE INFORMATION
(RTLOC1)	AEDC VA-4222(A-57). ISOLATED SRB/ET	2.200	1.760	.000	.000	2680.5620 SD.FT.
(RTLOC5)	AEDC VA-4222(A-57). CRB/ET V/BOTH SRB	2.200	1.760	.750	.000	L2E
(RTLOC7)	AEDC VA-4222(A-57). CRB/ET V/BOTH SRB	2.200	1.760	1.500	.000	BREF
(RTLOC9)	AEDC VA-4222(A-57). CRB/ET V/BOTH SRB	2.200	1.760	1.500	.000	XWPP
						YWPP
						447.5620
						Z
						SC4.E
						SC4.Z



EFFECT OF TWO SRB AND SRB PLUMES ON 0/ET CHARACT. (POSITION 2)

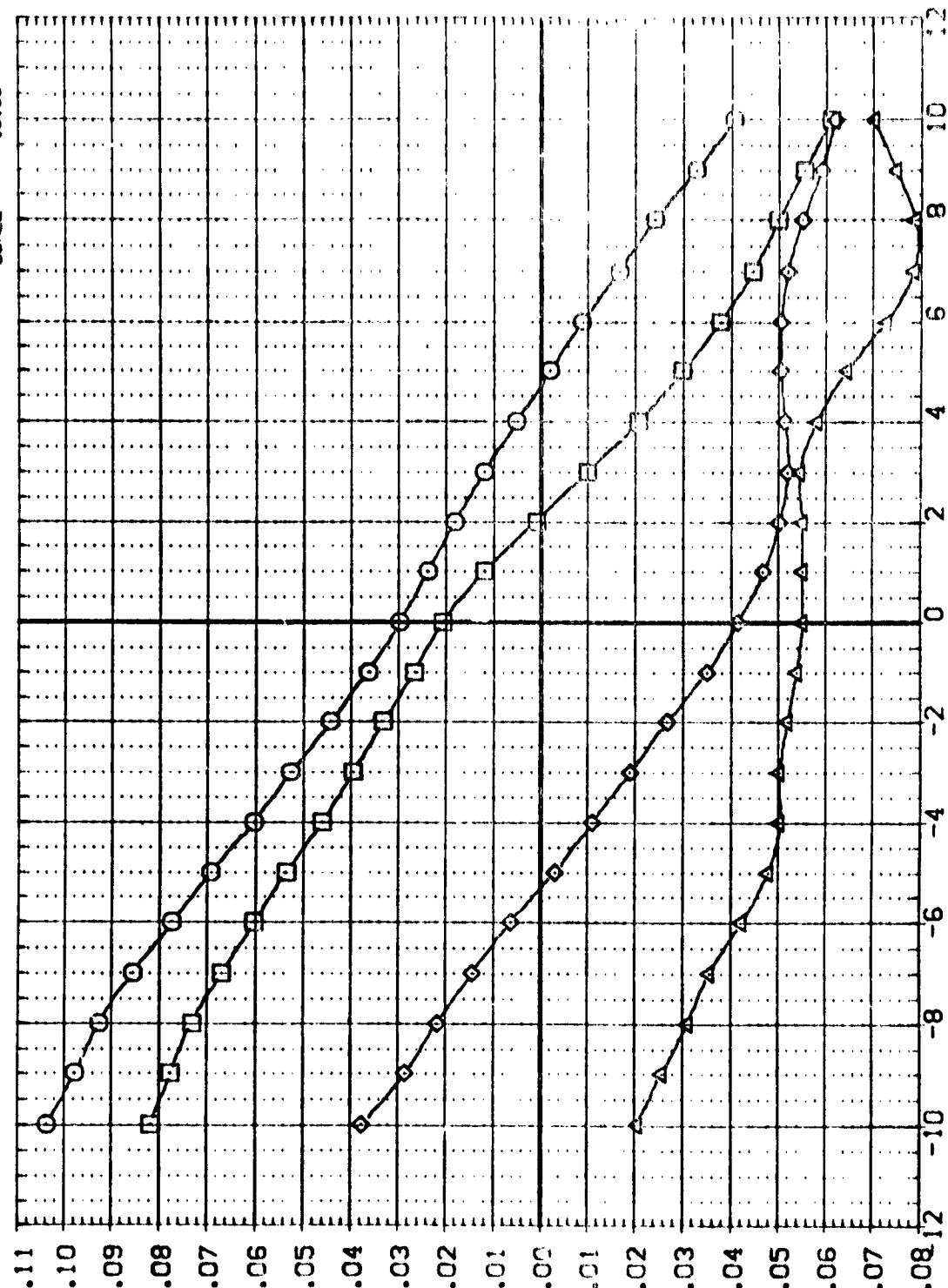
(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RTL001)	AEDC VA-422 (IA-57).	ISOLATED ORB/ET
(RTL045)	AEDC VA-422 (IA-57).	ORB/ET V/BOTH SRB
(RTL047)	AEDC VA-422 (IA-57).	CRB/ET V/BOTH SRB
(RTL049)	AEDC VA-422 (IA-57).	CRB/ET V/BOTH SRB

REFERENCE INFORMATION

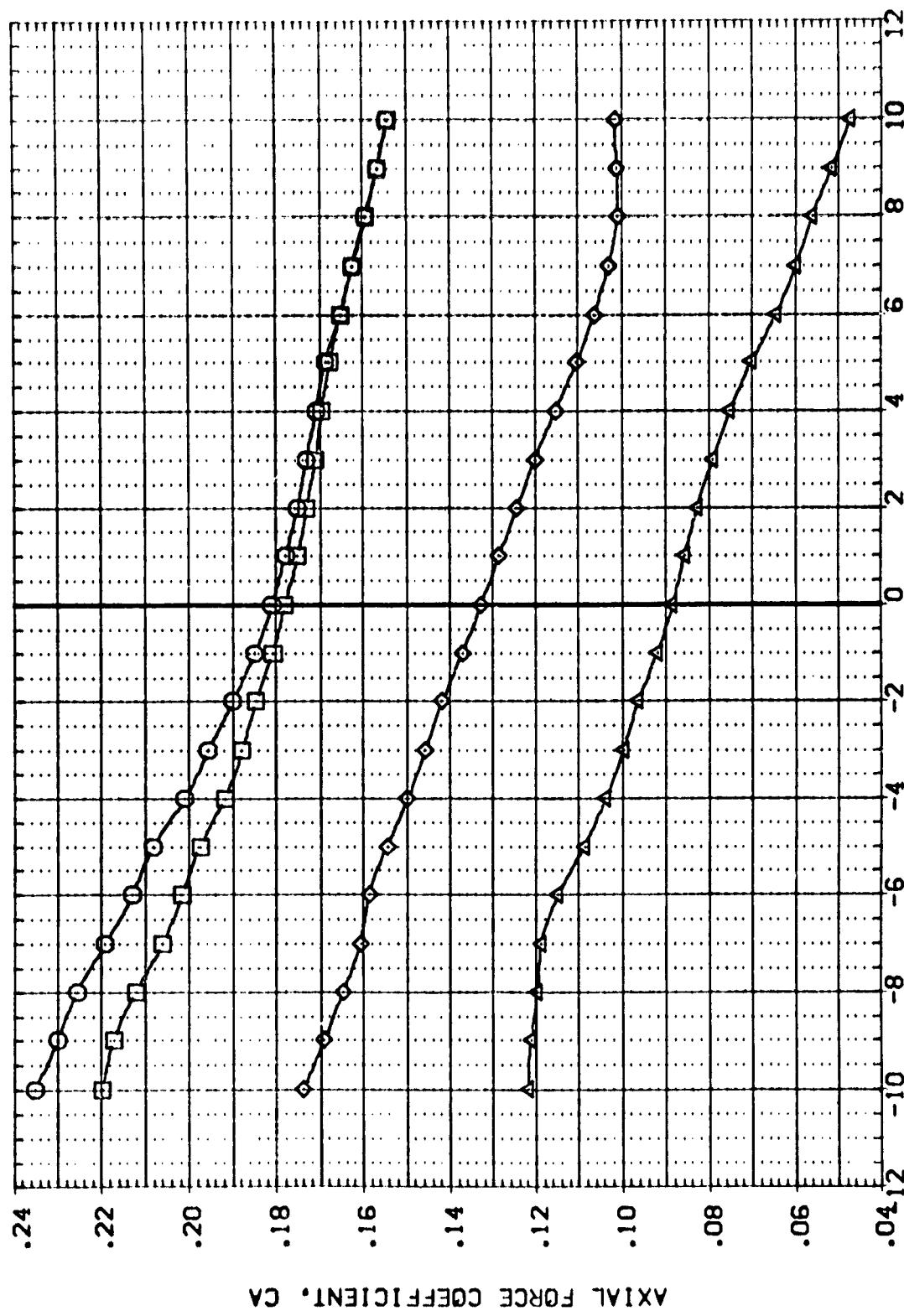
SRREF	2650	3000	SD.FT.
LREF	1250	3000	IN.
BREF	250	3000	X
XREF	1520	3000	Z
YREF	1470	3000	N
ZREF	447	3000	W
SCALE	.313		



EFFECT OF TWO SRB AND SRB PLUMES ON 0/ET CHARACT. (POSITION: 2)  
(A)MACH = 4.5C

DATA SET SYMBOL CONFIGURATION DESCRIPTION

CRT-LOC1	○	ISOLATED ORB/ET
AEDC VA-422 [A-57]	□	ORB/ET V/BOTH SRB
CRT-345	△	CRB/ET V/BOTH SRB
CRT-347	×	CRB/ET V/BOTH SRB
CRTLC49	×	CRB/ET V/BOTH SRB



EFFECT OF TWO SRB AND SRB PLUMES ON O/ET CHART. (POSITION 2)

(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RTL001]	ADC VA-122(A-57)	ISOLATED SRB
[RTL045]	ADC VA-122(A-57)	CRBET V/80TH SRB
[RTL047]	ADC VA-122(A-57)	CRBET V/80TH SRB
[RTL049]	ADC VA-122(A-57)	CRBET V/80TH SRB

REFS  
REF  
REF  
REF  
XTRP  
YTRP  
SCALE  
SCALE

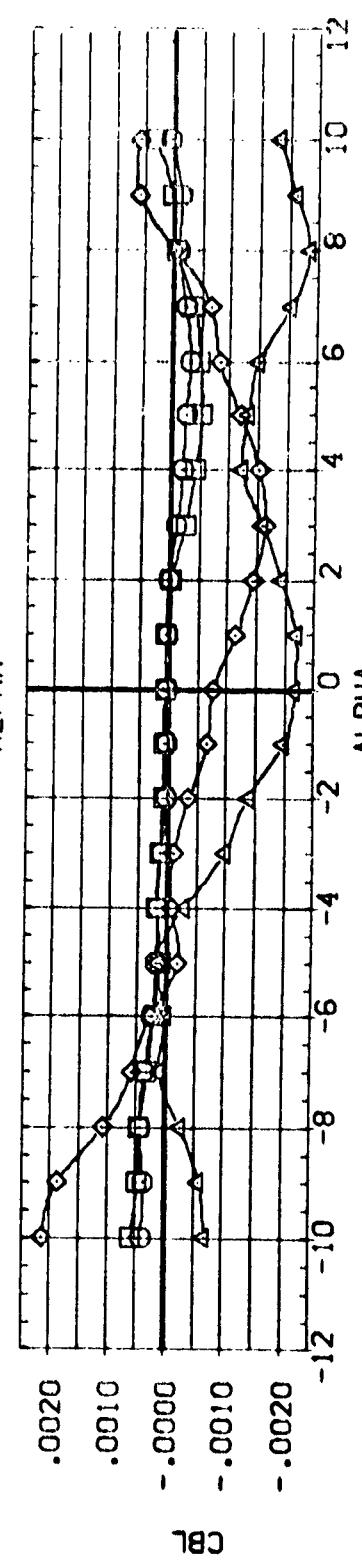
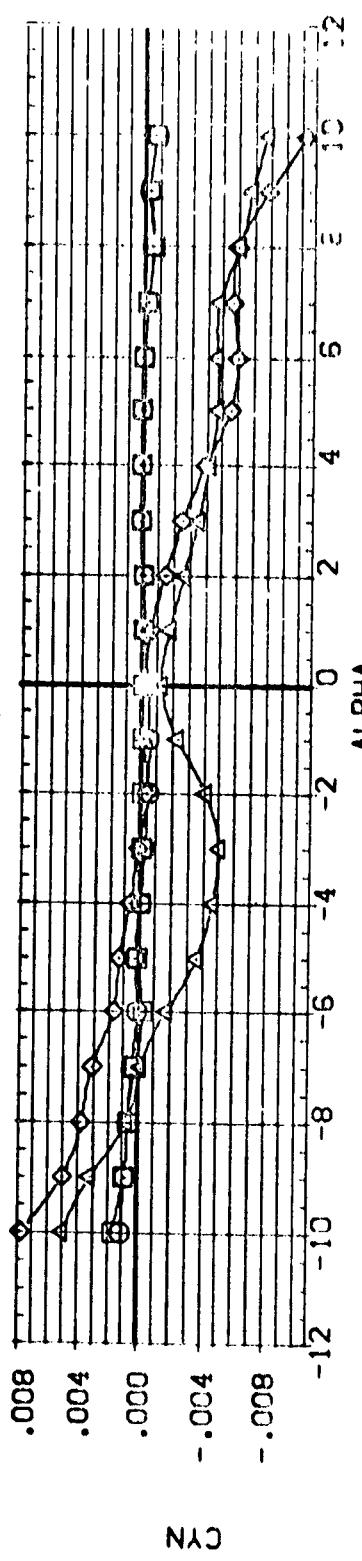
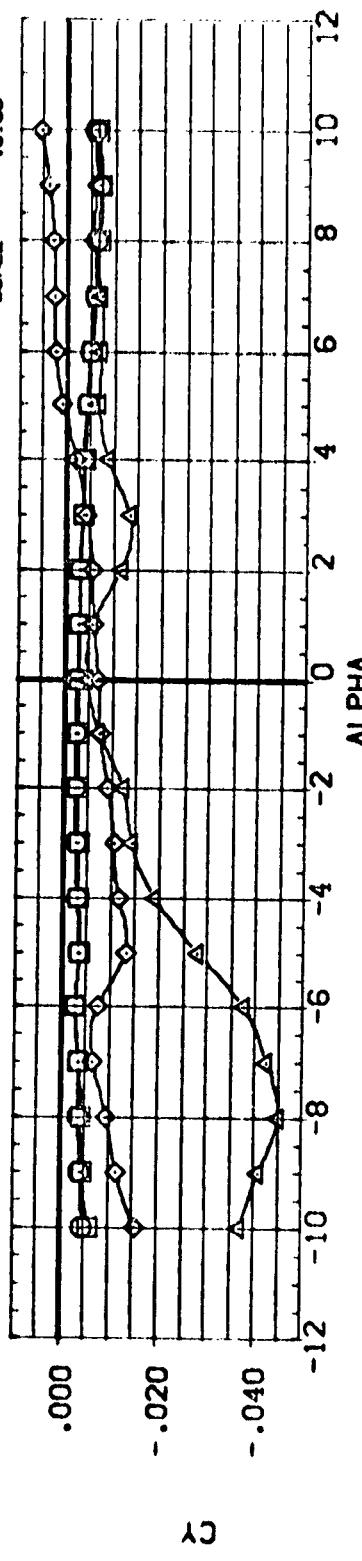
.000 .000 .000 .000 .000 .000 .0100

2820 3000 3000 1200 1200 1200 1.052

2820 3000 3000 1200 1200 1200 1.052

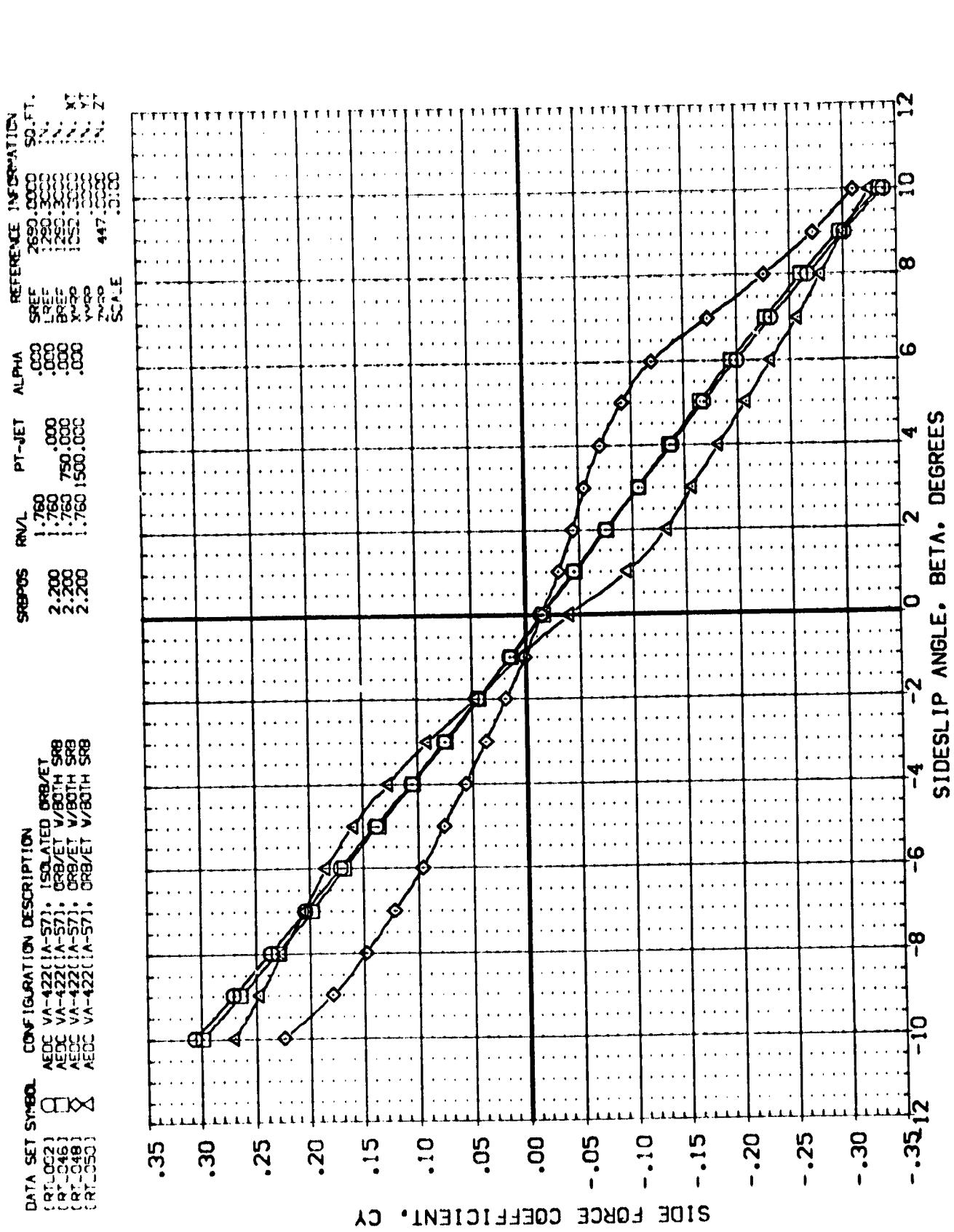
2820 3000 3000 1200 1200 1200 1.052

2820 3000 3000 1200 1200 1200 1.052



EFFECT OF TWO SRB AND SRB PLUMES ON O/ET CHRACT. (POSITION 2)  
(A)<sub>MACH</sub> = 4.50

FIGURE 102



SIDE FORCE COEFFICIENT,  $C_y$

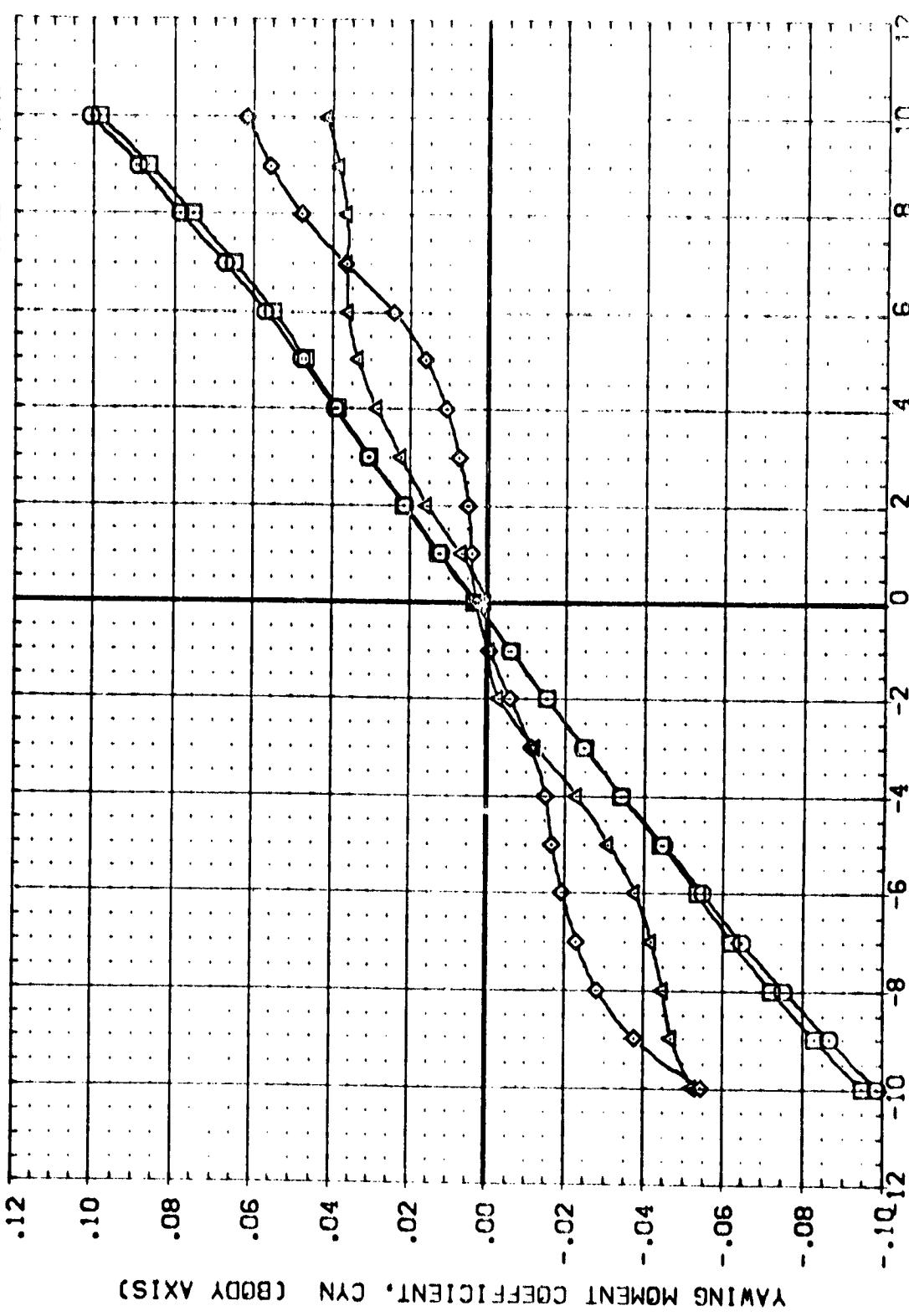
EFFECT OF TWO SRB AND SRB PLUMES ON 0/ET CHRACT. (POSITION 2)

$$(A)_{MACH} = 4.50$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RTL002]	AEDC VA-422 [IA-57]. ISOLATED SRB/ET
[RTL046]	AEDC VA-422 [IA-57]. SRB/ET V/BOTH SRB
[RTL048]	AEDC VA-422 [IA-57]. SRB/ET V/BOTH SRB
[RTL050]	AEDC VA-422 [IA-57]. SRB/ET V/BOTH SRB

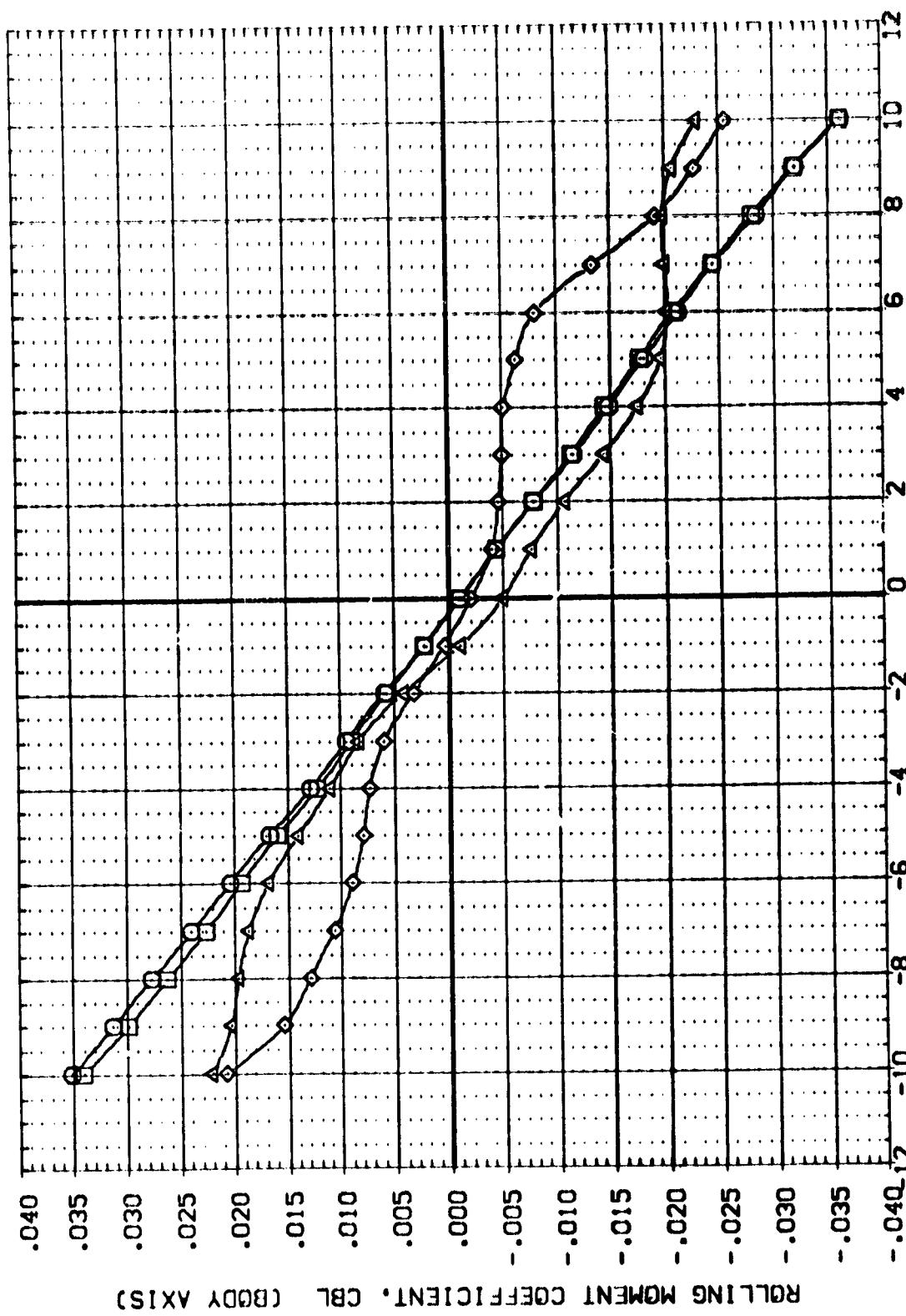
SRPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 2.263 1.760 .000 SREF 2650.2000 SC-ET.  
 2.263 1.760 .000 BREF 1250.3000  
 2.263 1.760 .000 XREF 152.3000  
 2.263 1.760 .000 YREF 447.3000  
 SCALE .0100



EFFECT OF TWO SRB AND SRB PLUMES ON 0/ET CHARACT. (POSITION 2)  
 $(\text{A})_{\text{MACH}} = 4.50$

DATE 10/27/74

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 CRTL002 AEDC VA-422[IA-57]. ISOLATED GRB/ET  
 CRTL016 AEDC VA-422[IA-57]. GRB/ET V/BOTH SRB  
 CRTL048 AEDC VA-422[IA-57]. GRB/ET V/BOTH SRB  
 CRTL050 AEDC VA-422[IA-57]. GRB/ET V/BOTH SRB



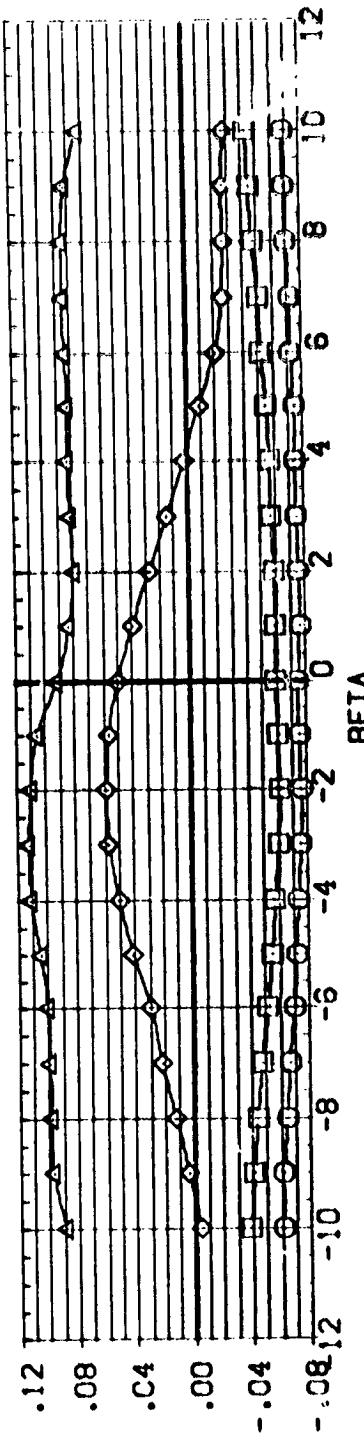
EFFECT OF TWO SRB AND SRB PLUMES ON 0/ET CHRACT. (POSITION 2)

(A)MACH = 4.50

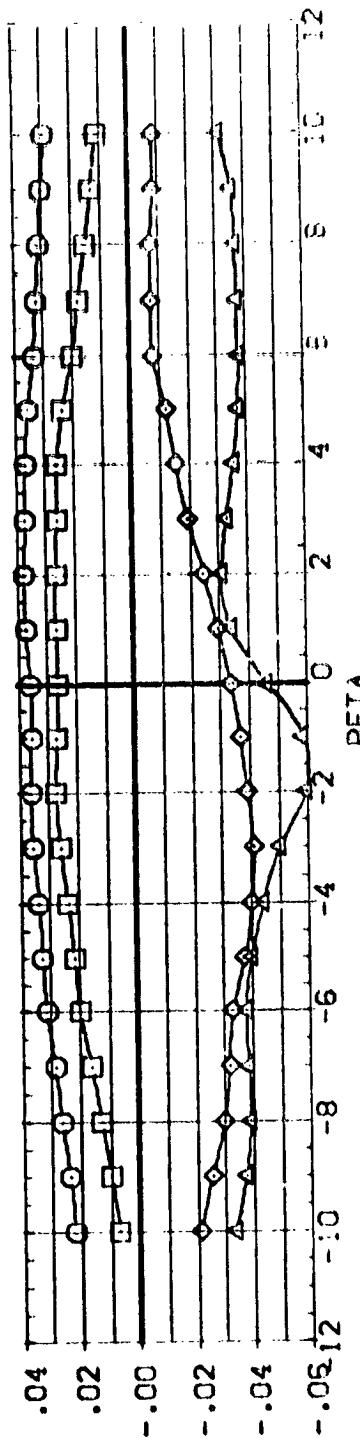
PAGE 195

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [RTLOC2] AEDC VA-422([IA-571], ISOLATED ORB/ET  
 [RTLOC6] AEDC VA-422([IA-571], ORB/ET V/BOTH SRB  
 [RT-348] AEDC VA-422([IA-571], CR/ET V/BOTH SRB  
 [RT-050] AEDC VA-422([IA-571], CR/ET V/BOTH SRB

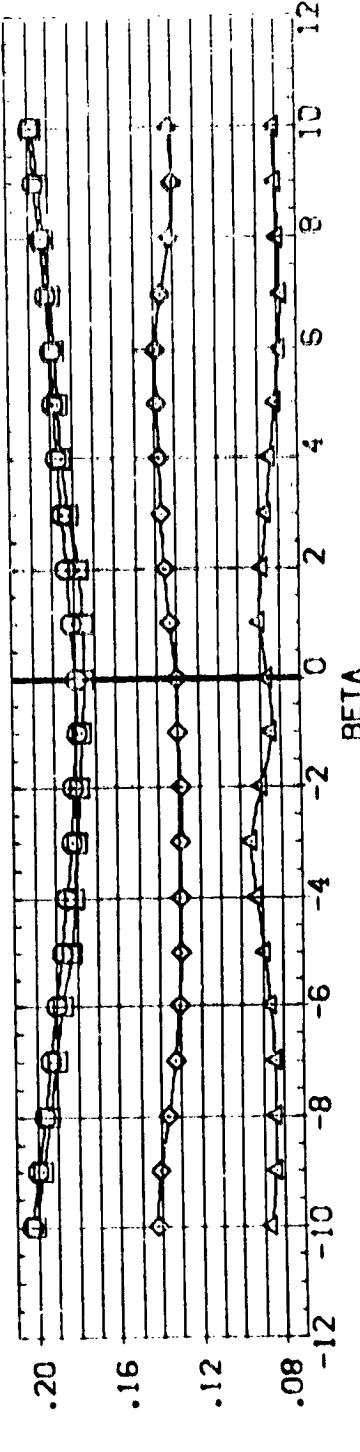
SEPARS AV/L PT-JET ALPHA REFERENCE INFORMATION  
 2.200 1.760 .000 SPFT 2690.0000  
 2.203 1.760 .750 .000 SPFT 1290.3333  
 2.203 1.760 1500.000 .000 SPFT 1520.3333  
 2.203 1.760 1500.000 YSPF 447.3333  
 SCALE .0100



C2



CLM



CA

EFFECT OF TWO SRB AND SRB PLUMES ON 0/ET CHARACT. (POSITION 2)

( $\Delta$ MACH = 4.50)

DATE : 25/2

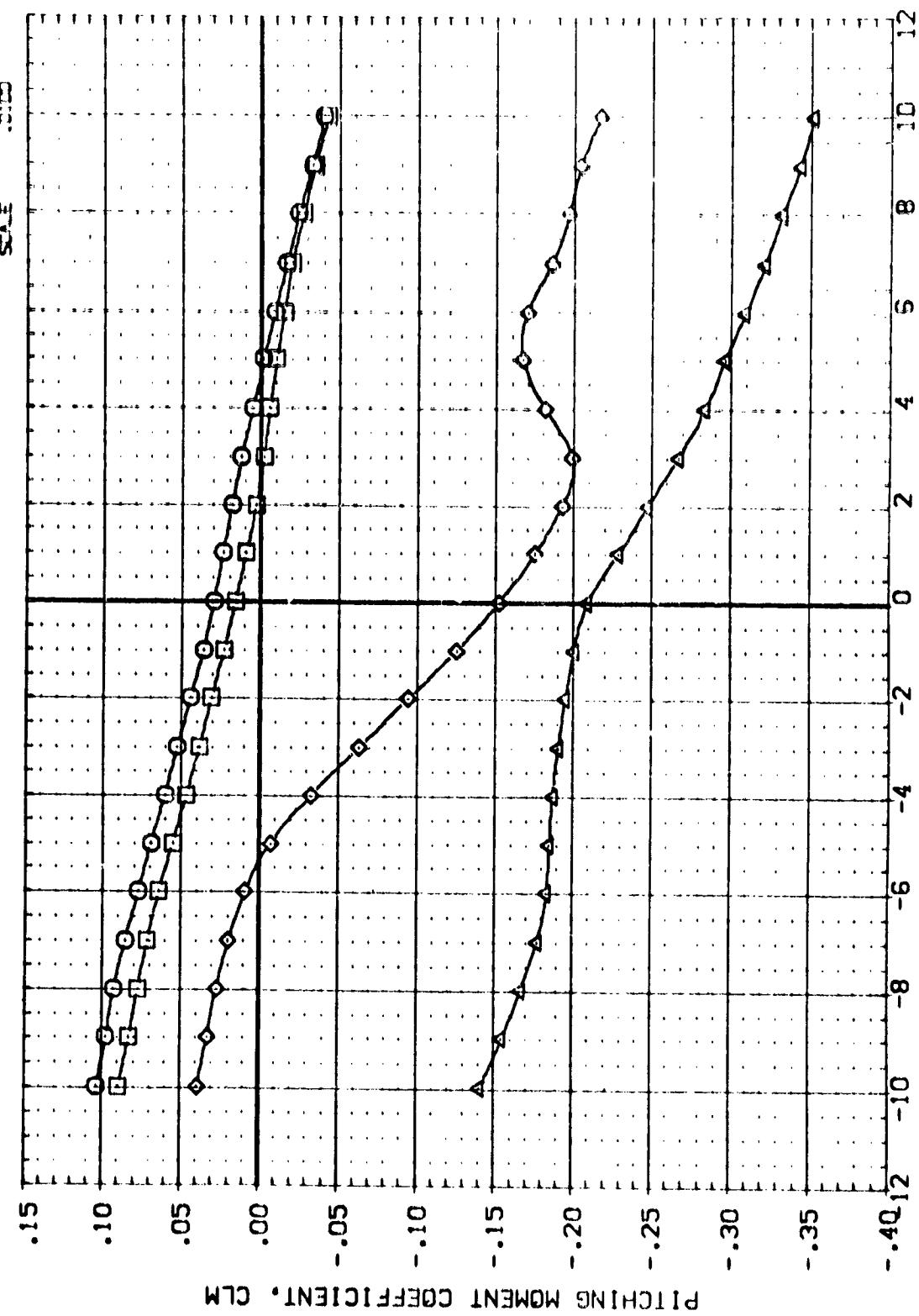
PAGE : 25

DATA SET SOURCE CONFIGURATION DESCRIPTION  
 [RTLOC1] AEDC VA-422/[A-571] ISOLATED SRB/ET  
 [RTLOC5] AEDC VA-422/[A-571] SRB/ET V/BOTH SRB  
 [RTLOC8] AEDC VA-422/[A-571] CRB/ET V/BOTH SRB  
 [RTLOC9] AEDC VA-422/[A-571] CRB/ET V/BOTH SRB



EFFECT OF TWO SRB AND SRB PLUMES ON Q/ET CHARACT. (POSITION 3)  
 $(\Delta)_{MACH} = 4.50$

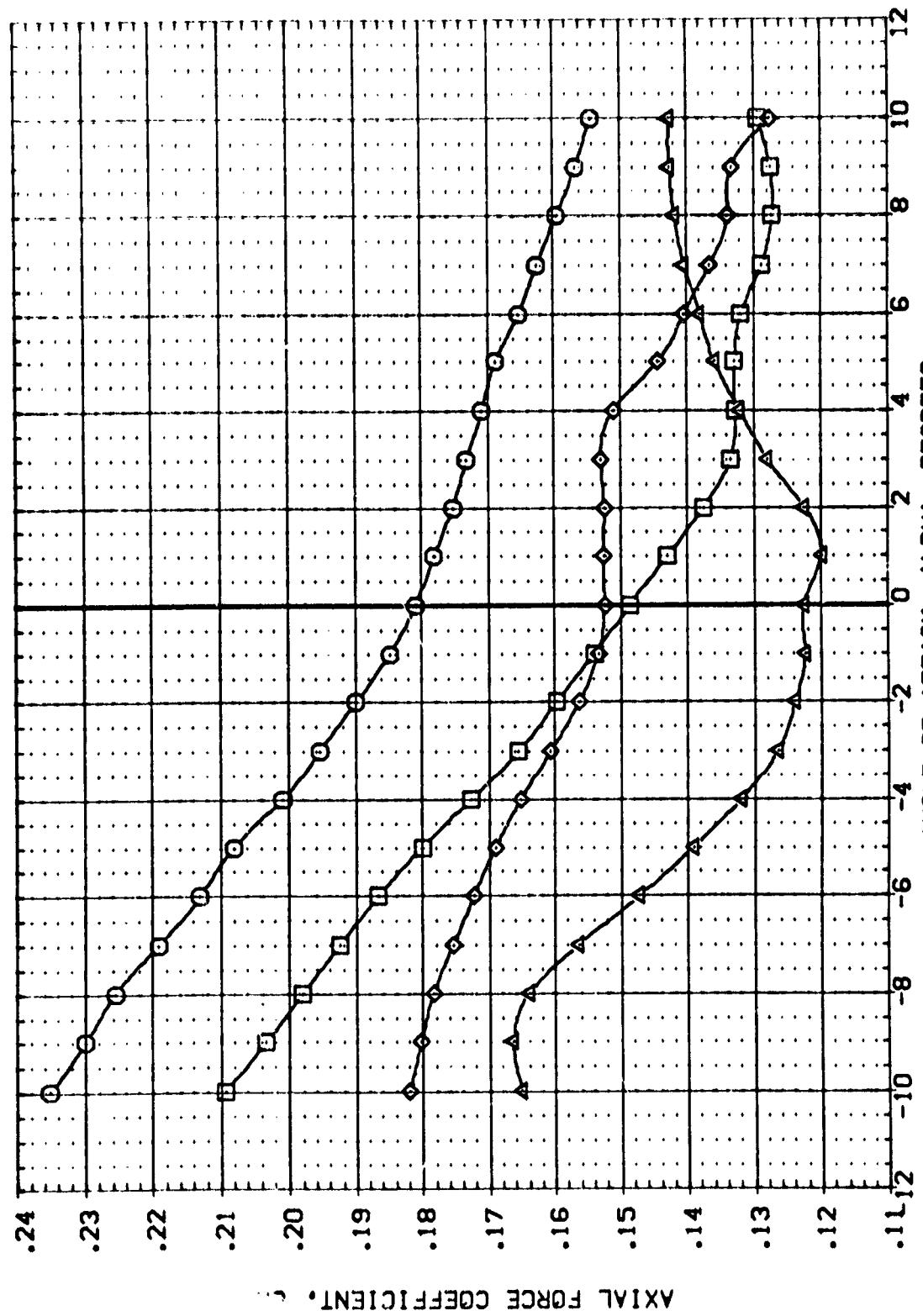
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [CRTL001] AEDC VA-422/[A-57], ISOLATED GRB/ET  
 [CRTL056] AEDC VA-422/[A-57], GRB/ET V/BOTH SRB  
 [CRTL058] AEDC VA-422/[A-57], GRB/ET V/BOTH SRB  
 [CRTL059] AEDC VA-422/[A-57], GRB/ET V/BOTH SRB



EFFECT OF TWO SRBs AND SRB PLUMES ON G/ET CHARACTER. POSITION 32  
 $(\text{AJMACH}) = 4.50$

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [RTLO01] AEDC VA-422[IA-57] ISOLATED ORB/ET  
 [RTLOSS1] AEDC VA-422[IA-57] ORB/ET V/BOTH SRB  
 [RTLOSS2] AEDC VA-422[IA-57] ORB/ET V/BOTH SRB  
 [RTLOSS3] AEDC VA-422[IA-57] ORB/ET V/BOTH SRB  
 [RTLOSS4] AEDC VA-422[IA-57] ORB/ET V/BOTH SRB

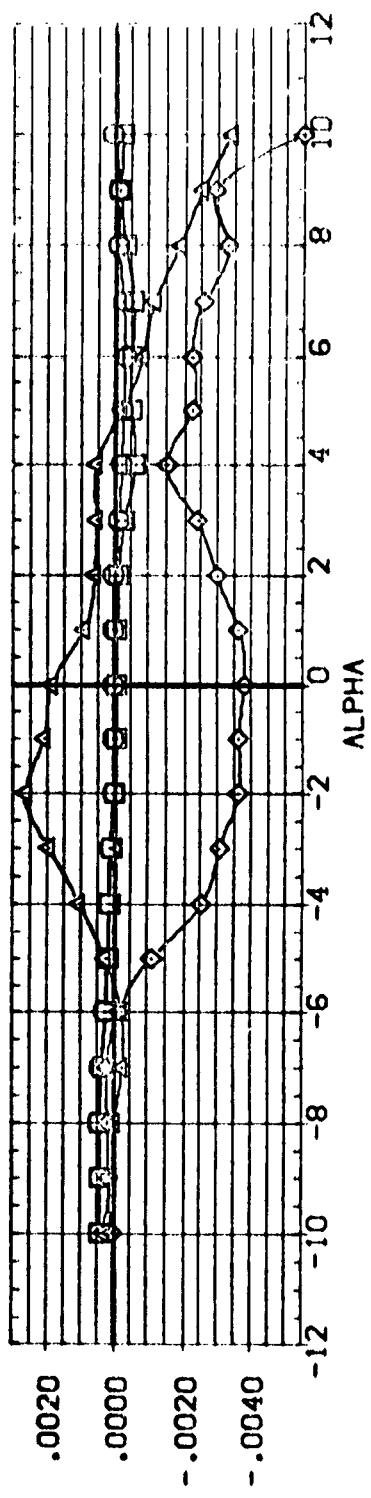
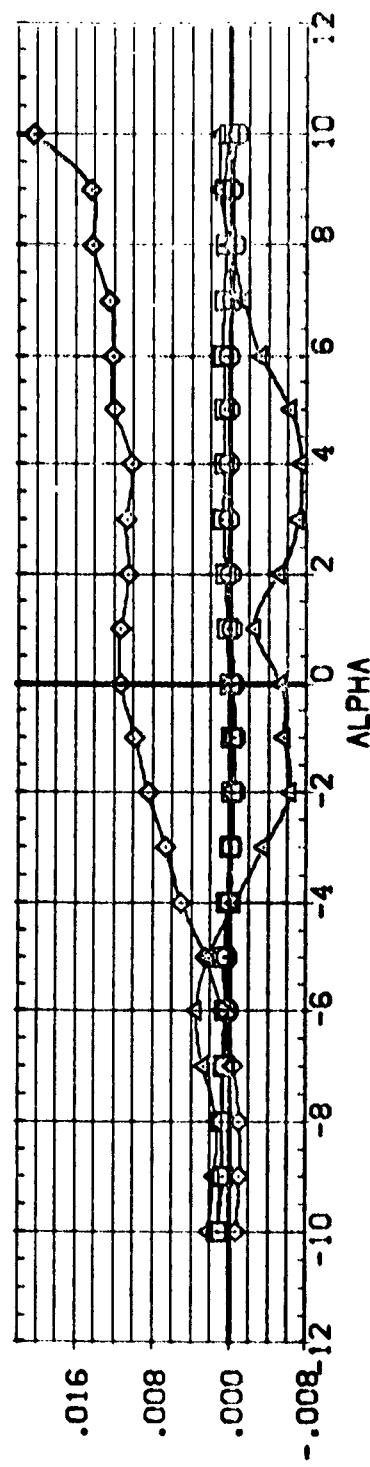
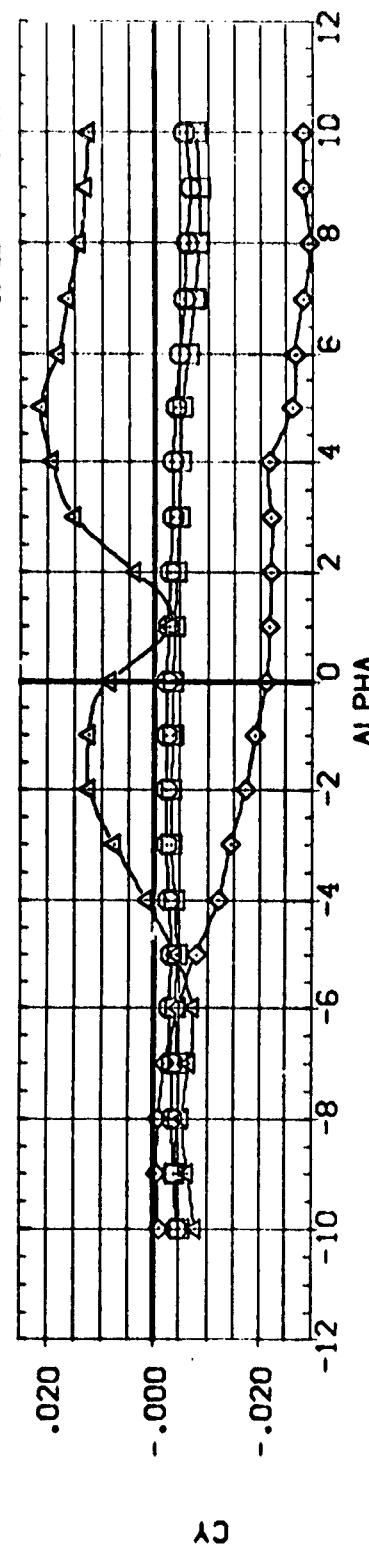


EFFECT OF TWO SRB AND SRB PLUMES ON O/ET CHARACT. (POSITION 3)  
(A) MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

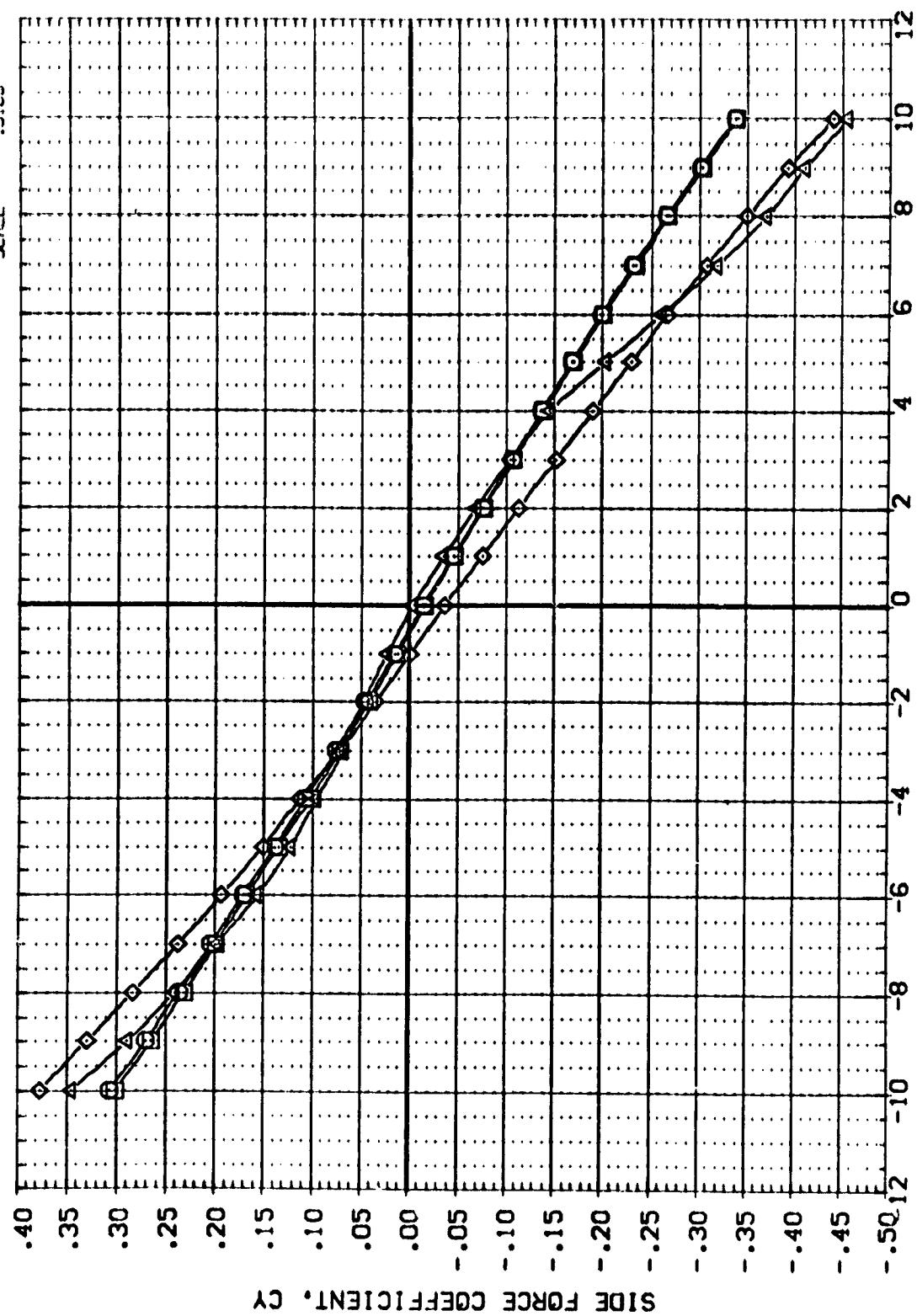
(RTLO01)	AEDC	VA-422[IA-57]. ISOLATED SRB/ET
(RTLO06)	AEDC	VA-422[IA-57]. GRB/ET V/BOTH SRB
(RTLO08)	AEDC	VA-422[IA-57]. GRB/ET V/BOTH SRB
(RTLO09)	AEDC	VA-422[IA-57]. GRB/ET V/BOTH SRB

SRBPOS RNL PT-JET BETA REFERENCE INFORMATION  
 3.300 1.760 .000 SREF 2690.0000 SQ.FT.  
 3.300 1.760 .000 LRREF 1250.3000 IN.  
 3.300 1.760 .000 XREF 1250.3000 IN.  
 3.300 1.760 .000 YREF 1352.0000 IN.  
 2.32P 447.0000 IN.  
 .0100 SCALE



EFFECT OF TWO SRB AND SRB PLUMES ON 0/ET CHARACT. (POSITION 3)  
 $C_{D,MACH} = 4.50$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	RN/L	PT-JET	ALPHA	REFERENCE INFORMATION
[CRTL002]	AEDC VA-422([A-57]) ISOLATED ORB/JET	3.300	1.760	.000	.000	SREF 2690.0000 SD.FT.
[CRTL057]	AEDC VA-422([A-57]) ORB/JET V/BOTH SRB	3.300	1.760	.750	.000	LREF 1250.3000 IN.
[CRTL259]	AEDC VA-422([A-57]) CRB/JET V/BOTH SRB	3.300	1.760	.750	.000	BREF 1250.3000 IN.
[CRTL261]	AEDC VA-422([A-57]) CRB/JET V/BOTH SRB	3.300	1.760	1500.000	.000	X <sup>2</sup> 1520.0000 IN.
						Z <sup>2</sup> 447.5000 IN.
						SCALE .0100

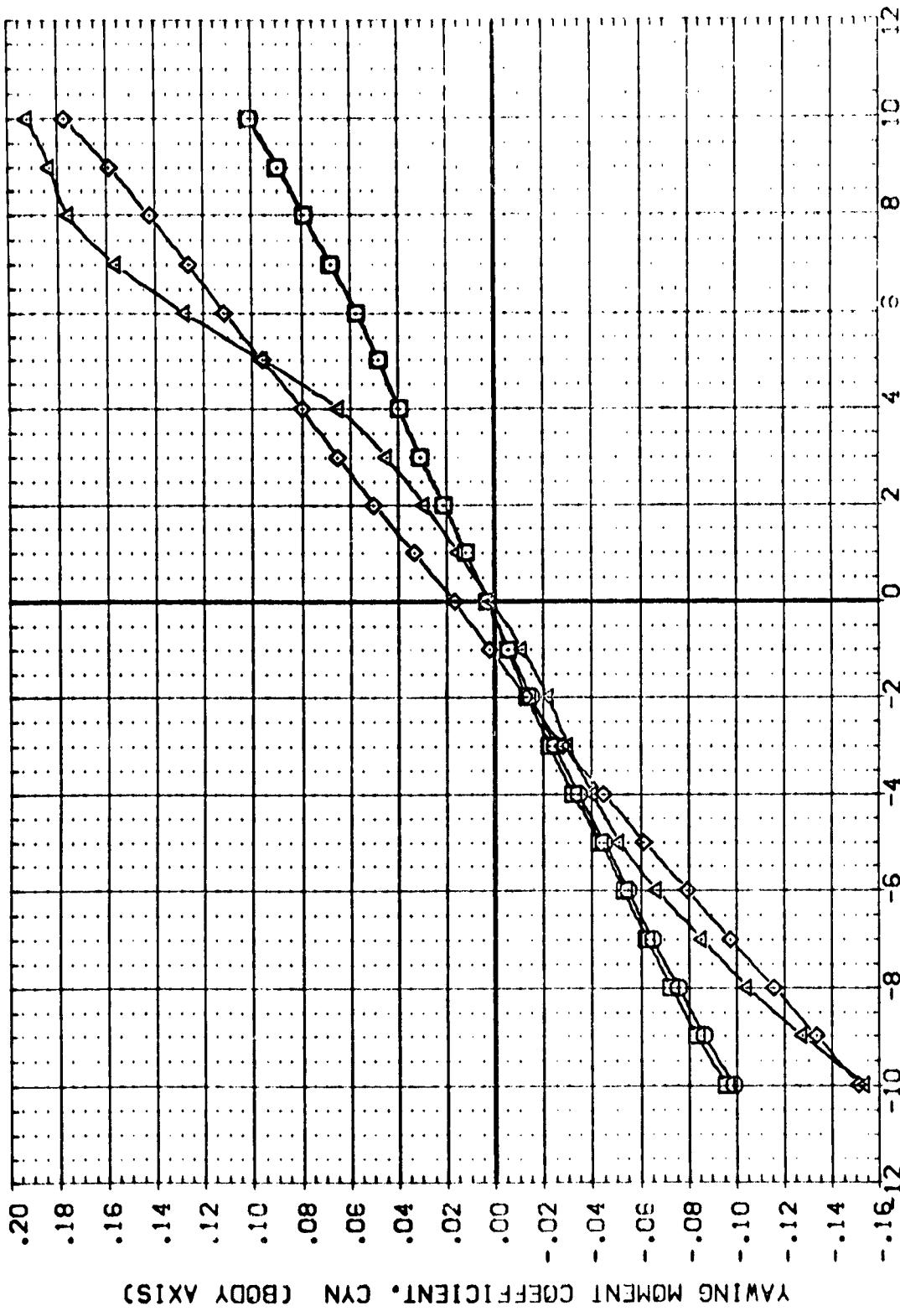


EFFECT OF TWO SRB AND SRB PLUMES ON O/EJ CHRACT. POSITION 3)  
 $(\lambda)_MACH = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RTL002]	AEDC VA-422 [A-57]. ISOLATED SRB/ET
[RTL057]	AEDC VA-422 [A-57]. SRB/ET V/BOTH SRB
[RTLC59]	AEDC VA-422 [A-57]. SRB/ET V/BOTH SRB
[RTL061]	AEDC VA-422 [A-57]. CRB/ET V/BOTH SRB

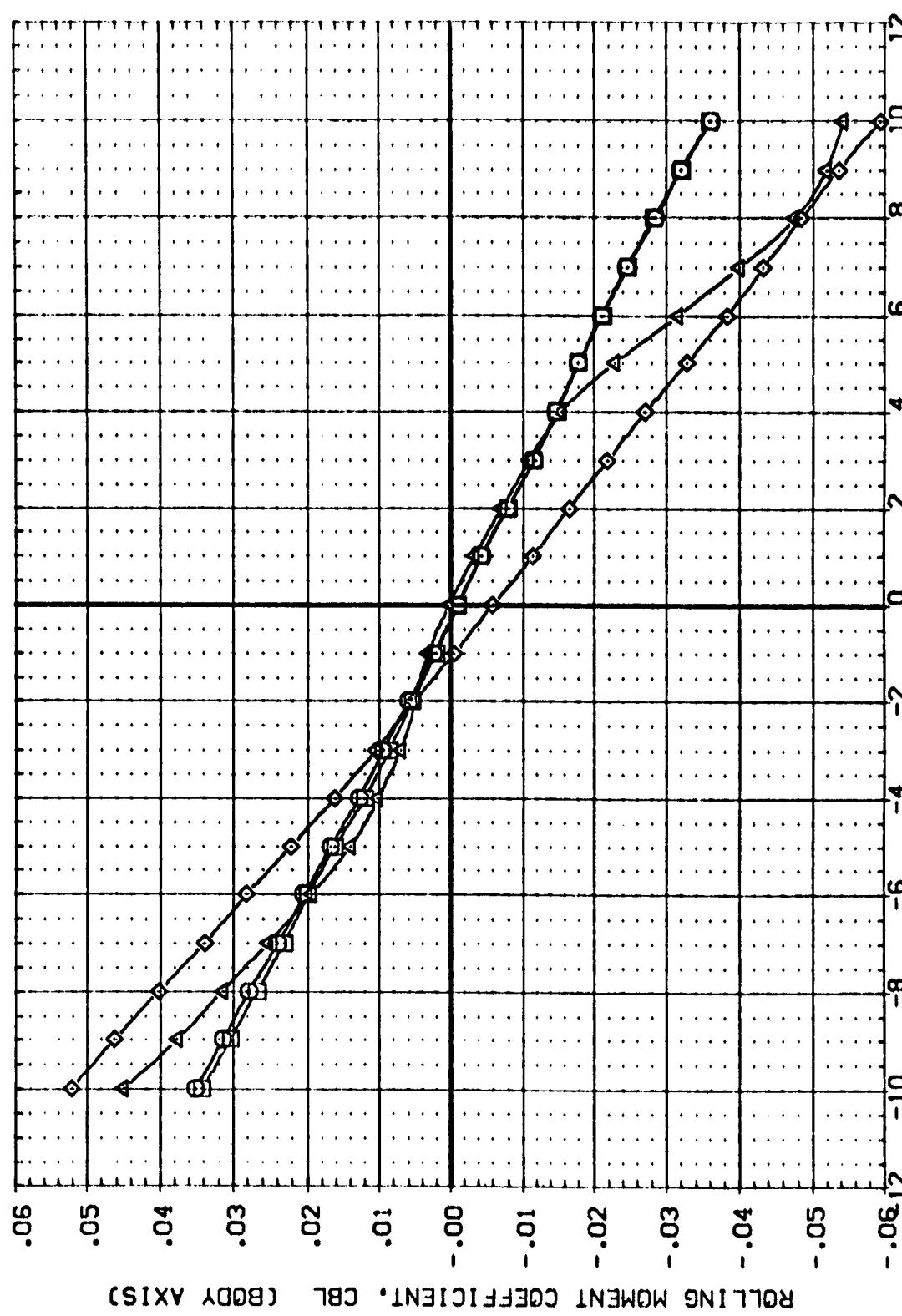
SRPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 3.300 1.760 .000 SREF 2620.0000 SQ.FT.  
 3.300 1.760 .000 LREF 1260.3500  
 3.300 1.760 .000 BREF 1260.3500  
 3.300 1.760 1500.000 XRP 1252.0000  
 3.300 1.760 1500.000 YRP 447.0000  
 ZRP 447.0000  
 SCALE .0100



EFFECT OF TWO SRB AND SRB PLUMES ON O/ET CHART. (POSITION 3)  
 (A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

Q	AEDC VA-422(IA-57) ISOLATED SRB/ET
+	AEDC VA-422(IA-57) ORB/ET V/BOTH SRB
X	AEDC VA-422(IA-57) ORB/ET V/BOTH SRB
△	AEDC VA-422(IA-57) ORB/ET V/BOTH SRB
○	AEDC VA-422(IA-57) ORB/ET V/BOTH SRB



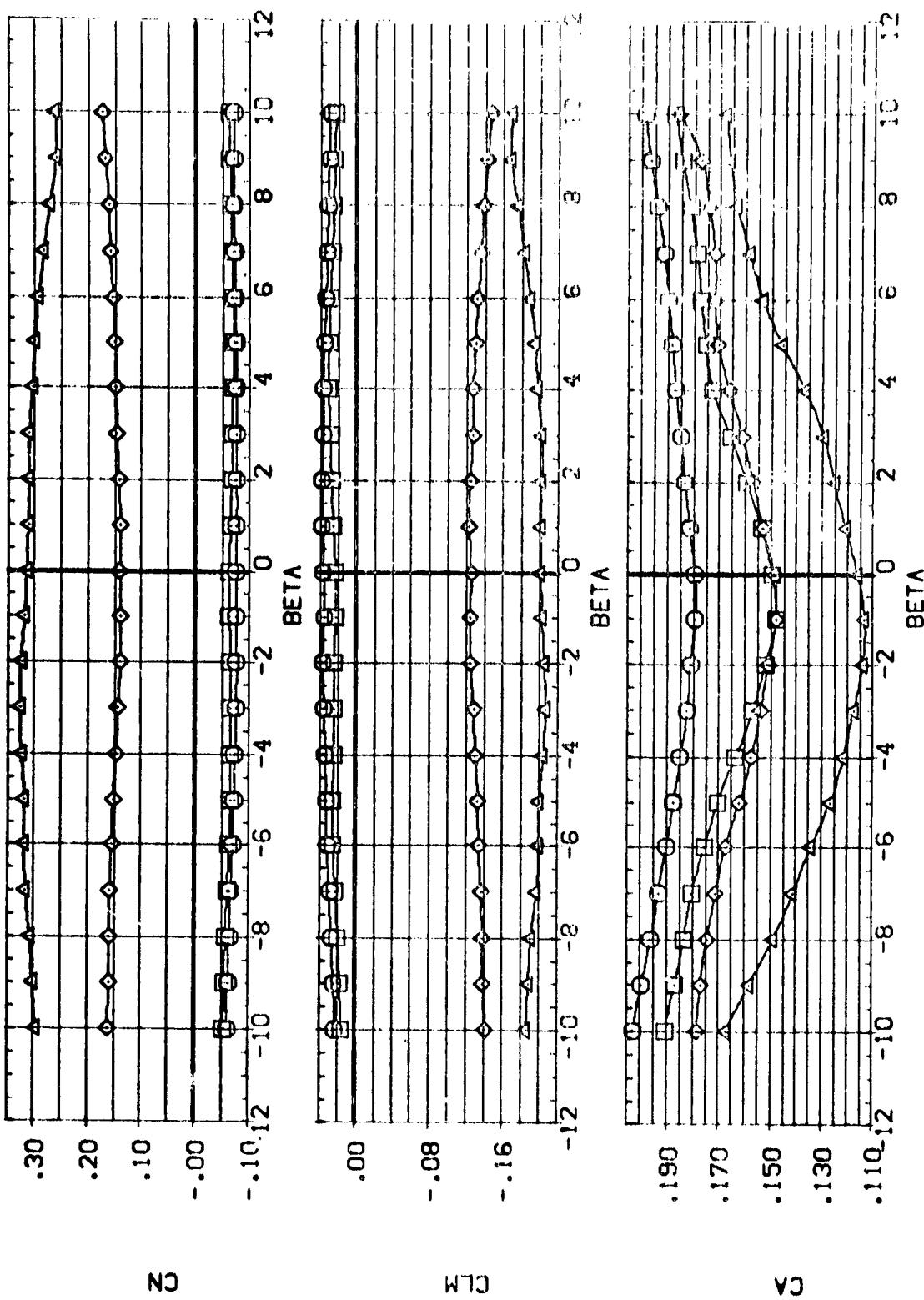
EFFECT OF TWO SRB AND SRB PLUMES ON 0/ET CHARACT. (POSITION 3)

(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[RTL002]	□	W-422(A-57)	ISOLATED SRB/E7	
[RTL057]	□	AEDC	VA-422(A-57)	SRB
[RTL059]	X	AEDC	VA-422(A-57)	SRB/ET
[RTL061]	△	AEDC	VA-422(A-57)	SRB/ET

SREFPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 3.300 .760 .000 SREF 2650.000 SQ.FT.  
 3.300 .760 .000 SREF 1250.300 IN.  
 3.300 .760 .000 SREF 1250.300 IN.  
 3.300 .760 .000 XRP 1552.000 IN.  
 3.300 .760 .000 YRP 447.000 IN.  
 ZRP .0100 IN.  
 SCALE



EFFECT OF TWO SRB AND SRB PLUMES ON Cn/ET CHARAC<sup>T</sup>. (DOSSET, 1976, 2)

(ADMACH = 4.50)

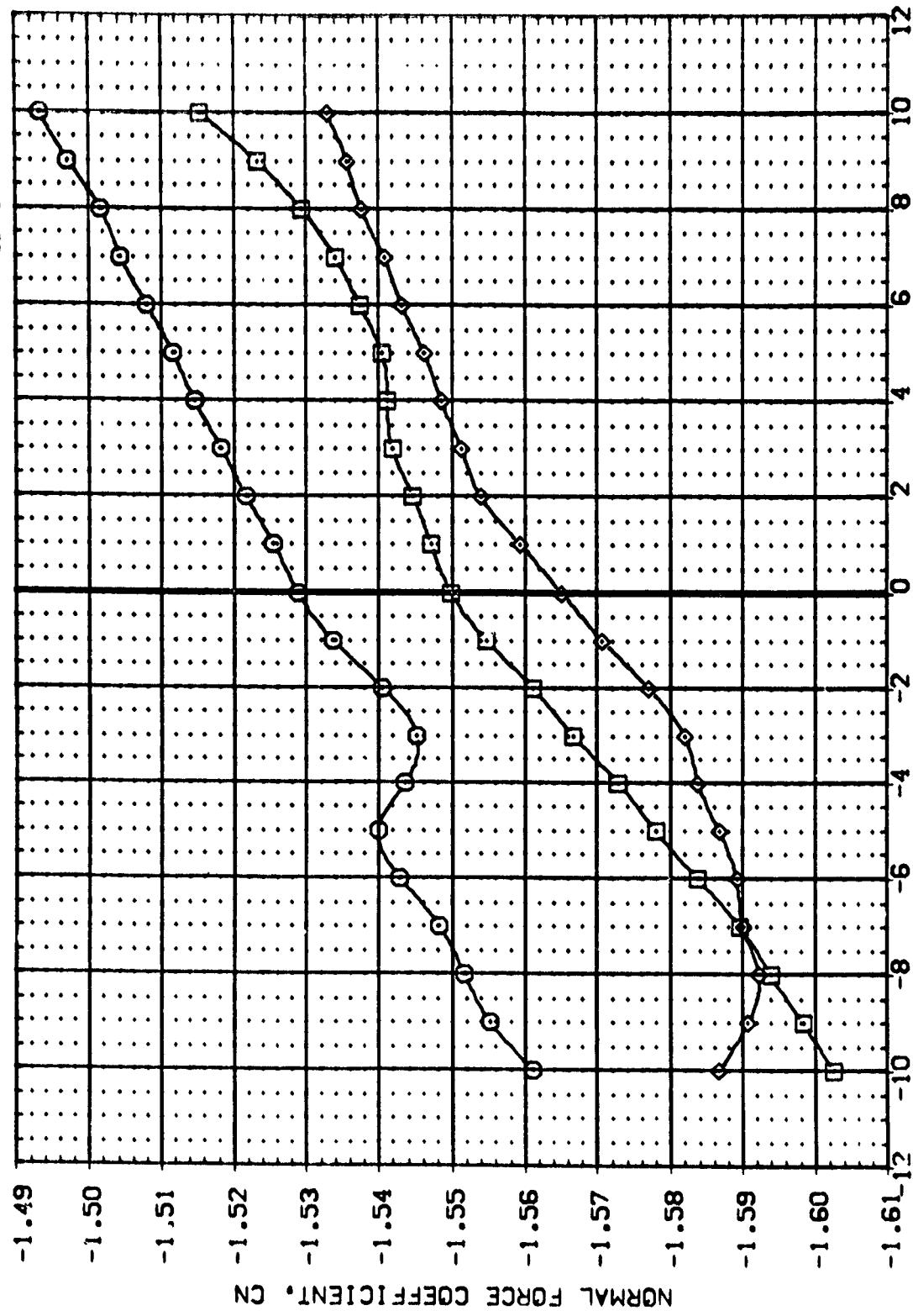
3.3E 202

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[STLC03]	○	AEDC VA-422(IA-57) ORB/ET V/80TH SRS
[STLC42]	□	AEDC VA-422(IA-57) ORB/ET V/80TH SRS
[STLC53]	◇	AEDC VA-422(IA-57) ORB/ET V/80TH SRS

REFERENCE INFORMATION

SUBPOS	AVNL	PT-JET	BETA	.000	REF	2630.0000	sq. ft.
1.100	1.010	1500.000	.000	.000	LEF	1250.3000	in.
2.200	1.010	1500.000	.000	.000	REF	1250.3000	in.
3.300	1.010	1500.000	.000	.000	XHPP	1167.0000	in.
					YHPP	1000.0000	in.
					ZHPP	400.0000	in.
					SCALE	.0100	



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (CRN/L=1.01)

(AJMACH = 4.50

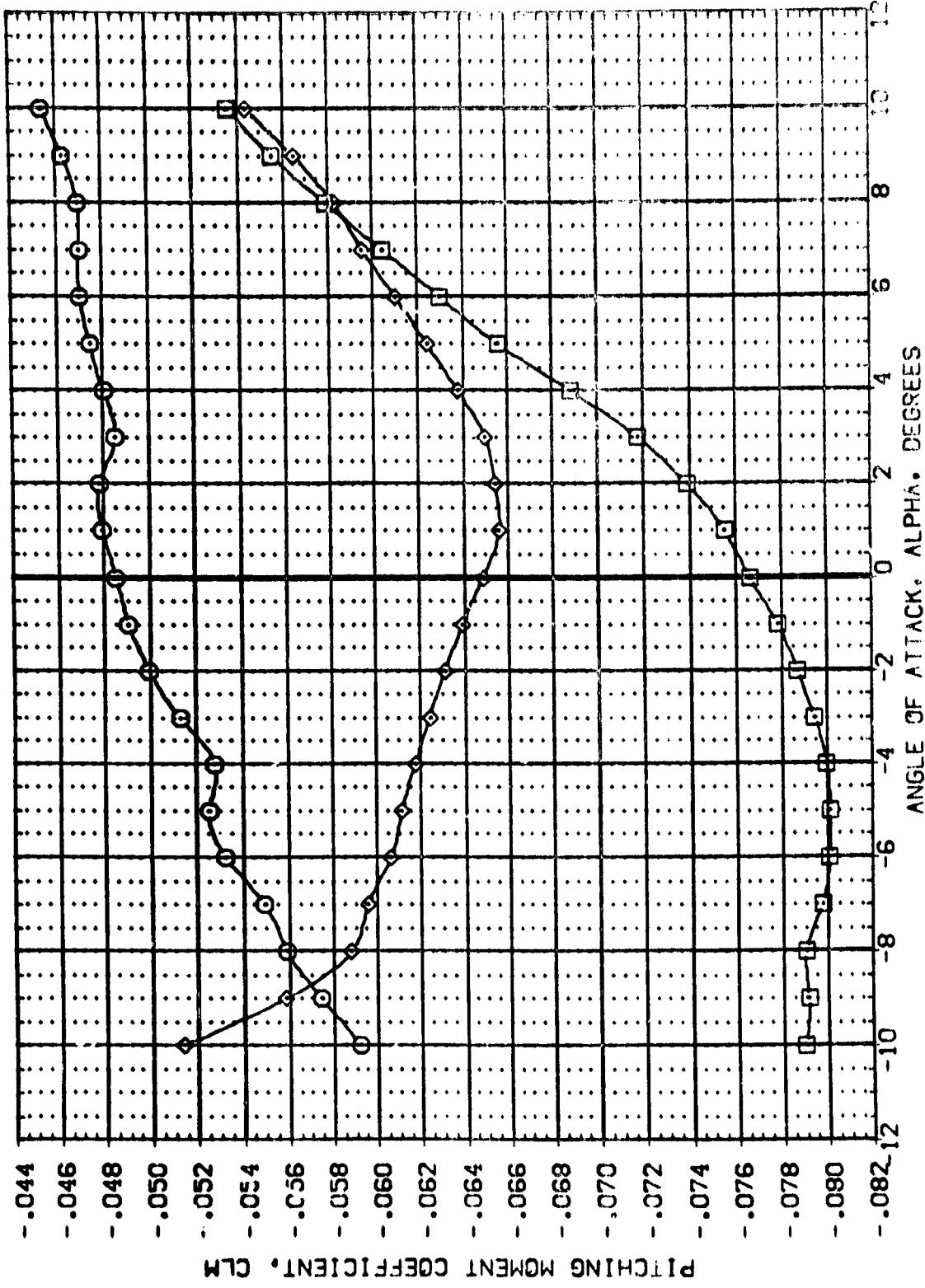
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DATA SET SYMBOL CONFIGURATION DESCRIPTION

{STL031}	AEDC VA-4221(IA-57)	ORB/EFT V/BOTH SRB
{STL042}	AEDC VA-4221(IA-57)	ORB/EFT V/BOTH SRB
{STL053}	AEDC VA-4221(IA-57)	ORB/EFT V/BOTH SRB

REFERENCE INFORMATION

REF	2690.0000	IN. FT.
LREF	1590.3000	IN.
BREF	1290.3000	IN.
XRP	1157.0000	IN.
YRP	400.0000	IN.
ZRP	400.0000	IN.
SCALE	.00100	

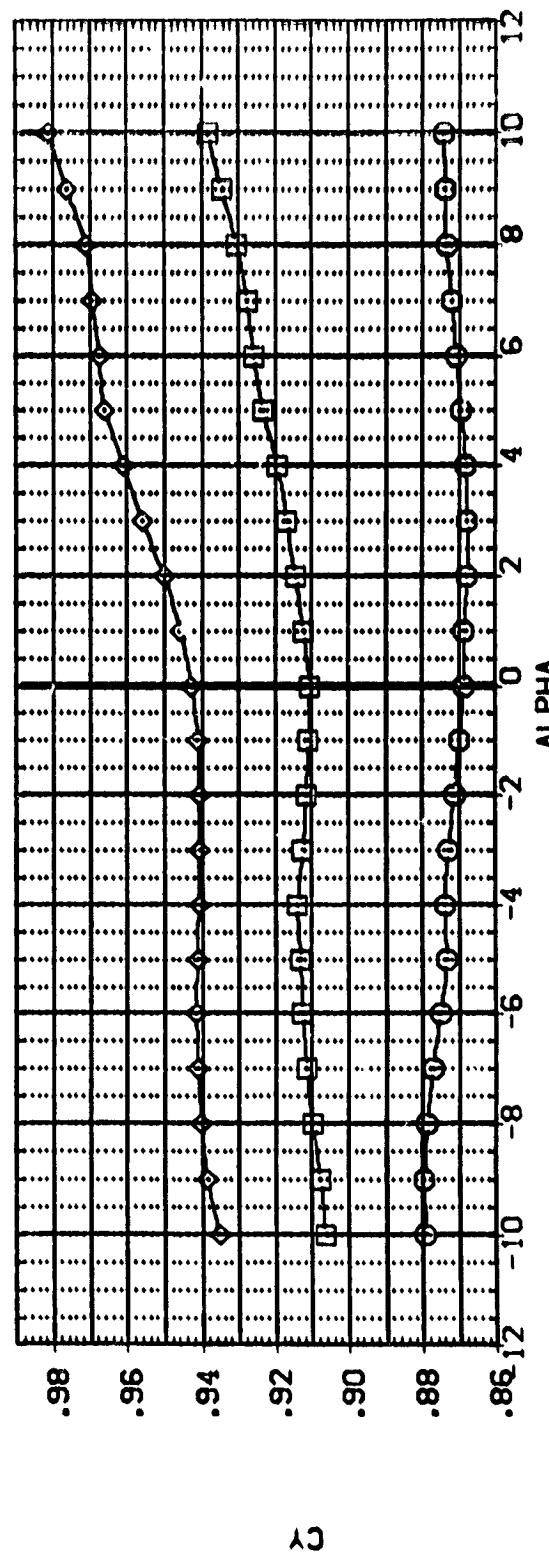
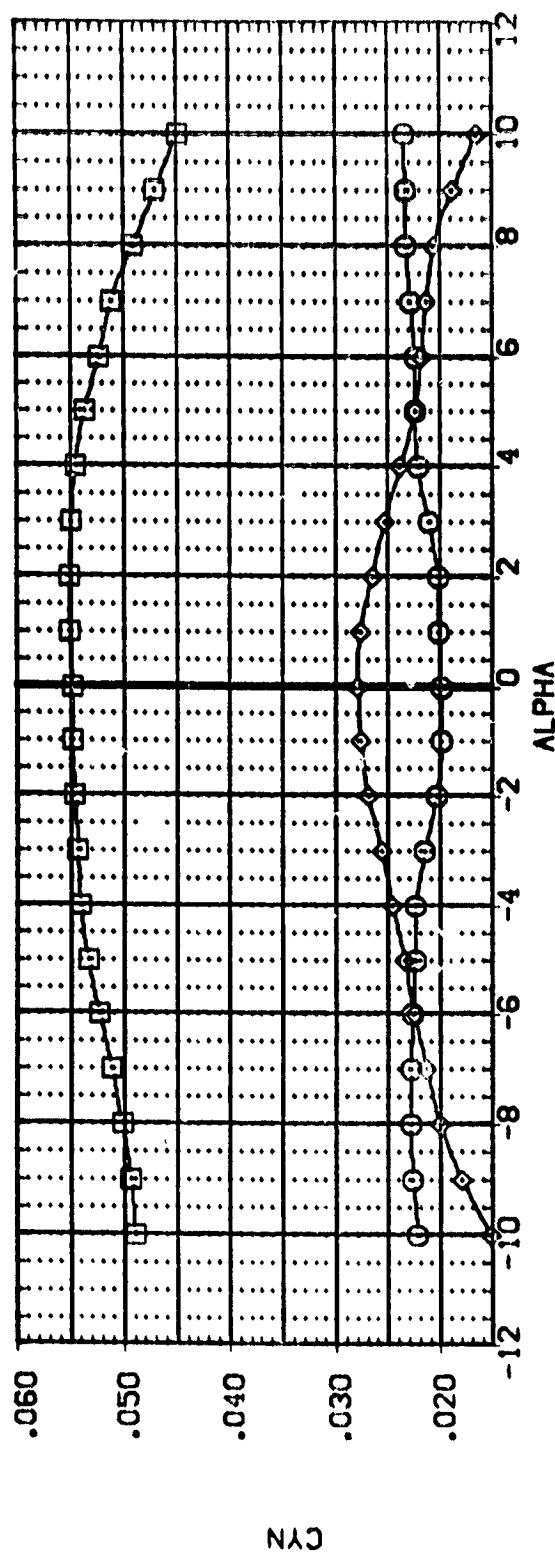


EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (CRM = 1.01)

CAS(MACH) = 4.50

DATE 7/25

DATA SET CODE CONFIGURATION DESCRIPTION  
 (ST\_031) AEDC VA-4222(IA-57), ORB/ET V/BOTH SRB  
 (ST\_042) AEDC VA-4222(IA-57), ORB/ET V/BOTH SRB  
 (ST\_053) AEDC VA-4222(IA-57), ORB/ET V/BOTH SRB



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (RN/L=1.01)

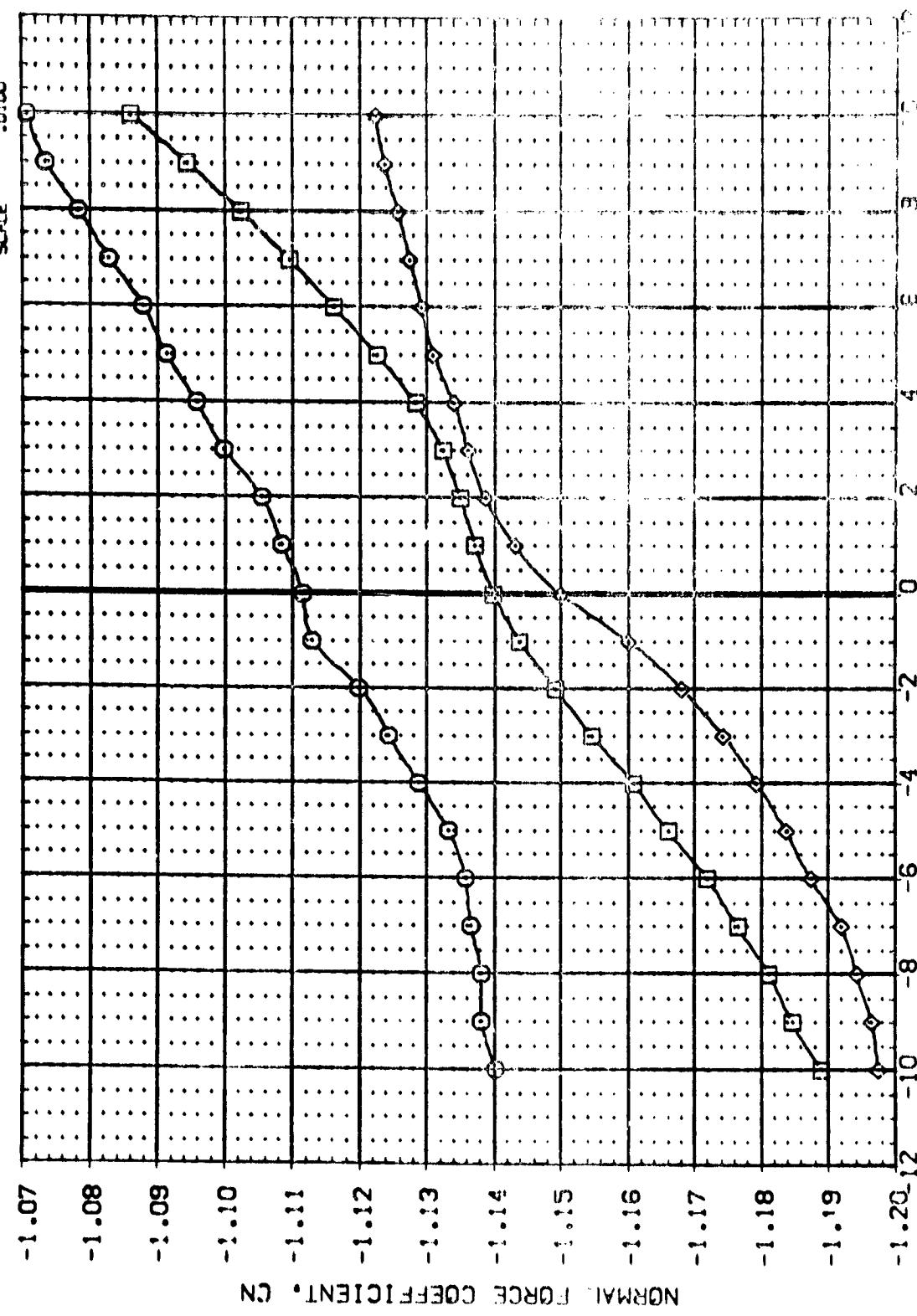
CABMACH = 4.50

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## DATA SET SYMBOL CONFIGURATION DESCRIPTION

STL032	AEDC	VA-422(I-A-57)	GRB/ET	V/BOTH	SRB
STL043	AEDC	VA-422(I-A-57)	GRB/ET	V/BOTH	SRB
STL054	AEDC	VA-422(I-A-57)	GRB/ET	V/BOTH	SRB

SRBROS RAVL PT-JET BETA REFERENCE INFORMATION  
 1.100 1.400 1.500 .000 SREF 2690 .0000 SD.FT.  
 2.200 1.400 1.500 .000 SREF 1290 .3000 IN.  
 3.300 1.400 1.500 .000 SREF 1257 .3000 IN.  
 YREF 1567 .0000 IN.  
 ZREF 400 .0000 IN.  
 SCALE .0100 IN.



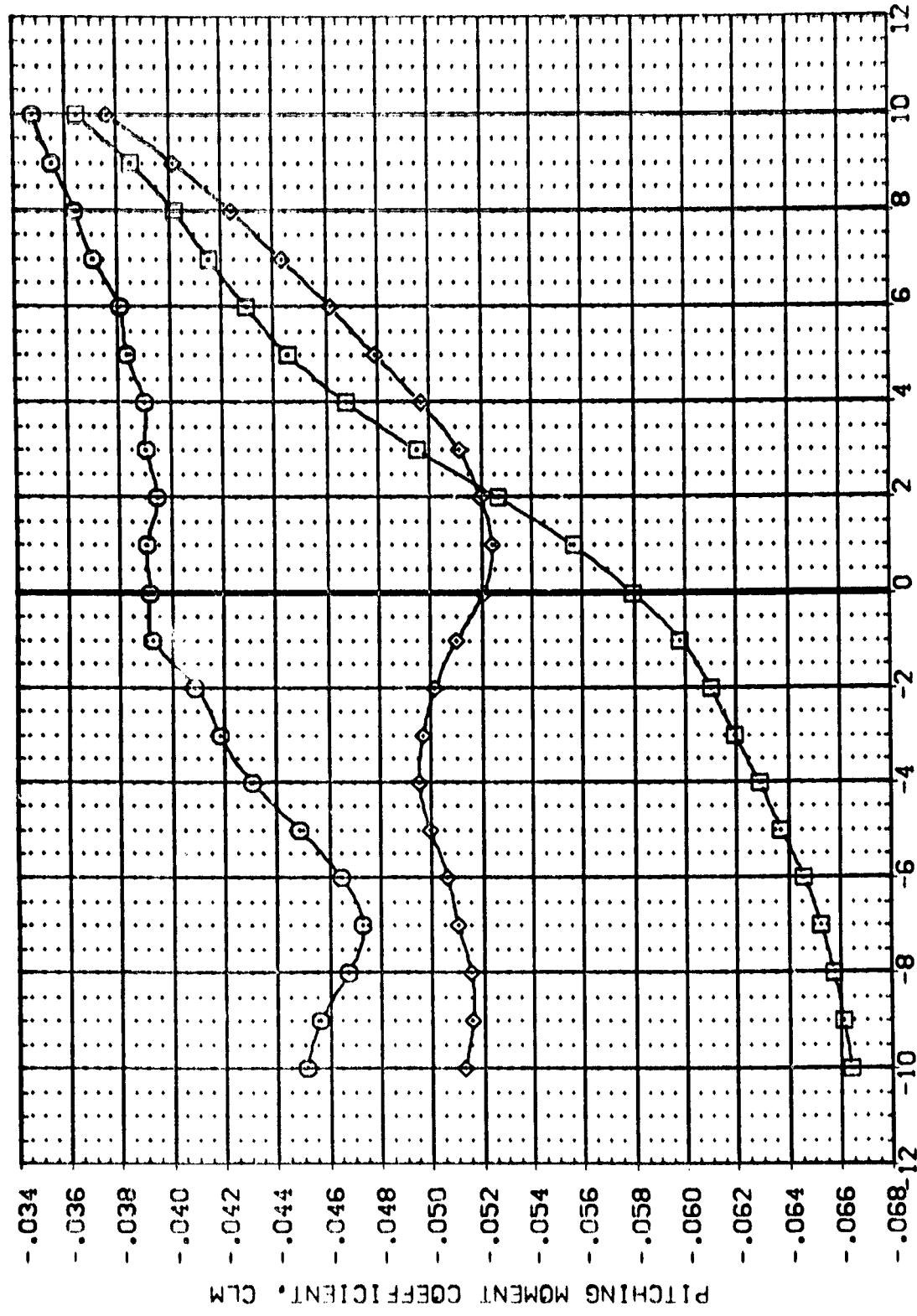
EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS FOR CASE 1  
 CASE 1 = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

S-032	AEDC VA-422(A-57). DRB/ET V/300 SRB
S-043	AEDC VA-422(A-57). DRB/ET V/300 SRB
S-054	AEDC VA-422(A-57). DRB/ET V/300 SRB

SRBPOS ROLL PT-JET BETA REFERENCE INFORMATION

1.100	1.400	150.000	.000	REF 2600 3000 50. F.
2.200	1.400	150.000	.000	REF 1200 2000 15.
3.300	1.400	150.000	.000	REF 1200 2000 15.
			.167	YPRO 1600 2000 15.
			.433	ZPRO 2000 2500 15.



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (RN/L=1.4)

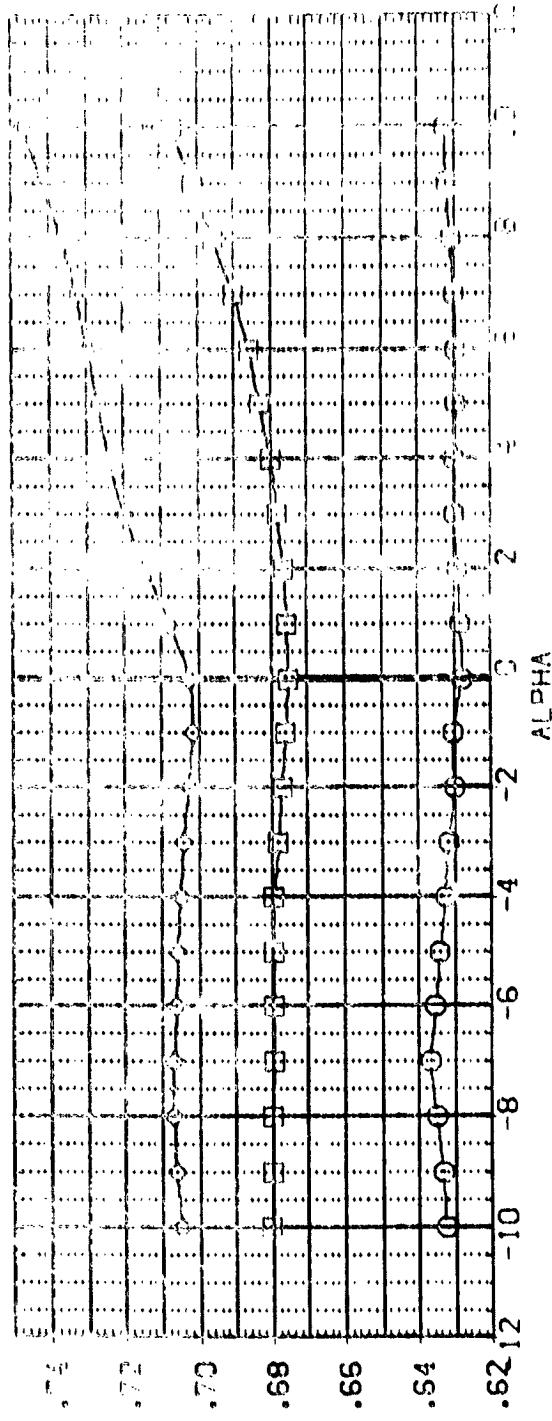
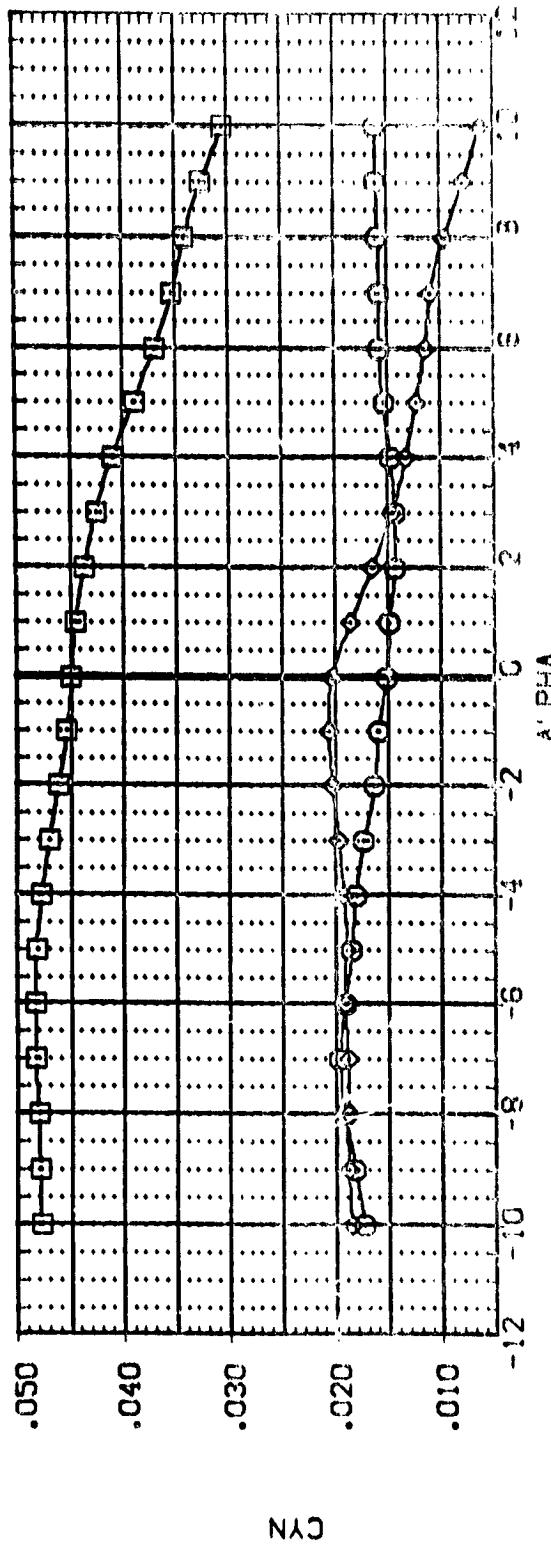
(A) MACH = 4.50

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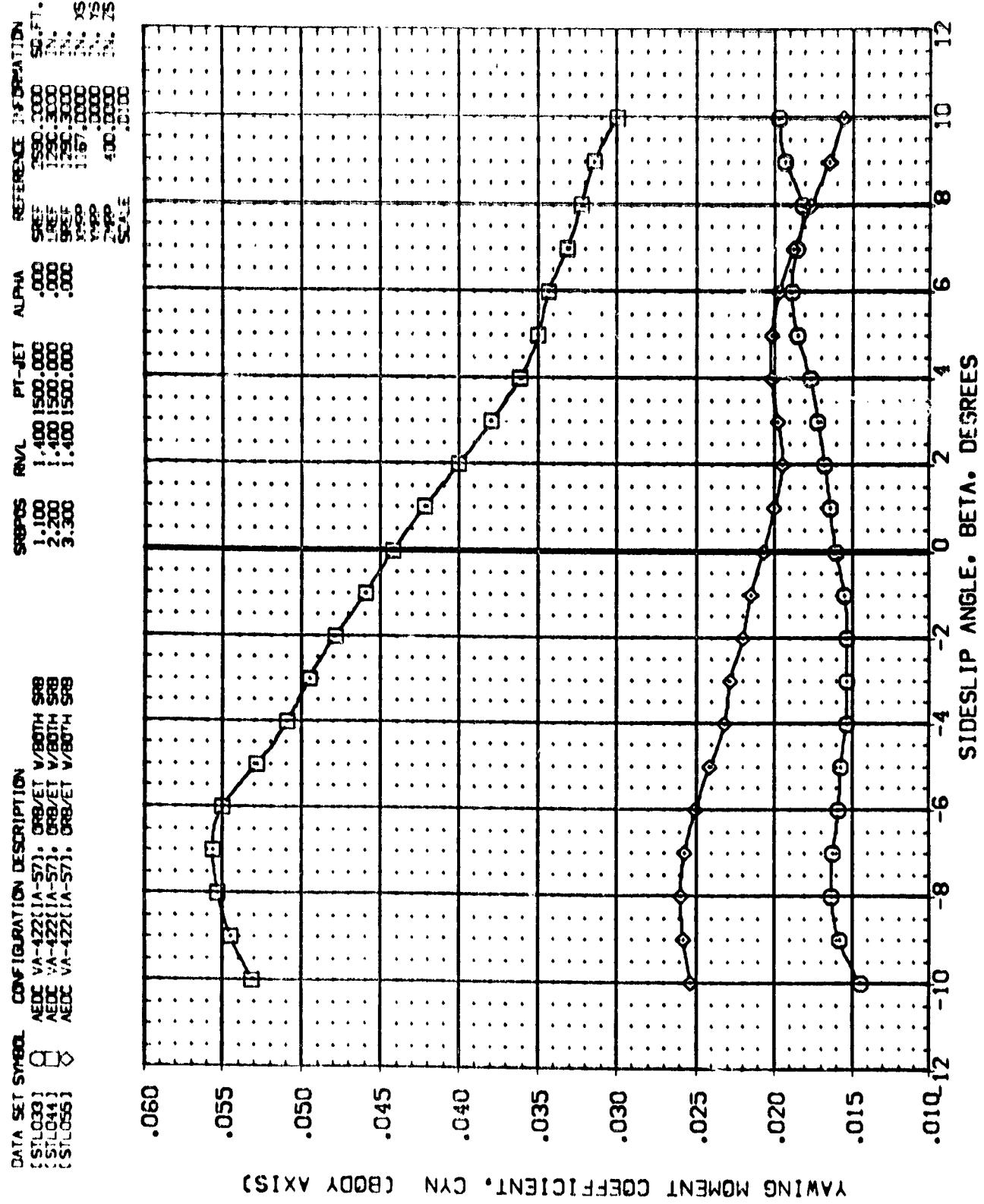
## DATA SET SYMBOL CONFIGURATION DESCRIPTION

STLC021	AEDC	VA-4221(A-57)	ORB/ET	V/BOTH	SRB
STLC031	AEDC	VA-4221(A-57)	ORB/ET	V/BOTH	SRB
STLC041	AEDC	VA-4221(A-57)	ORB/ET	V/BOTH	SRB

SRBPOS ROLL PT-JET BETA SEPARATION IN FEET  
 1.100 1.400 1500.000 .000 350.000 50. FT.  
 2.200 1.400 1500.000 .000 350.000 50. FT.  
 3.300 1.400 1500.000 .000 350.000 50. FT.  
 XREF 400.000 50. FT.  
 ZREF 400.000 50. FT.  
 SCALE .0100

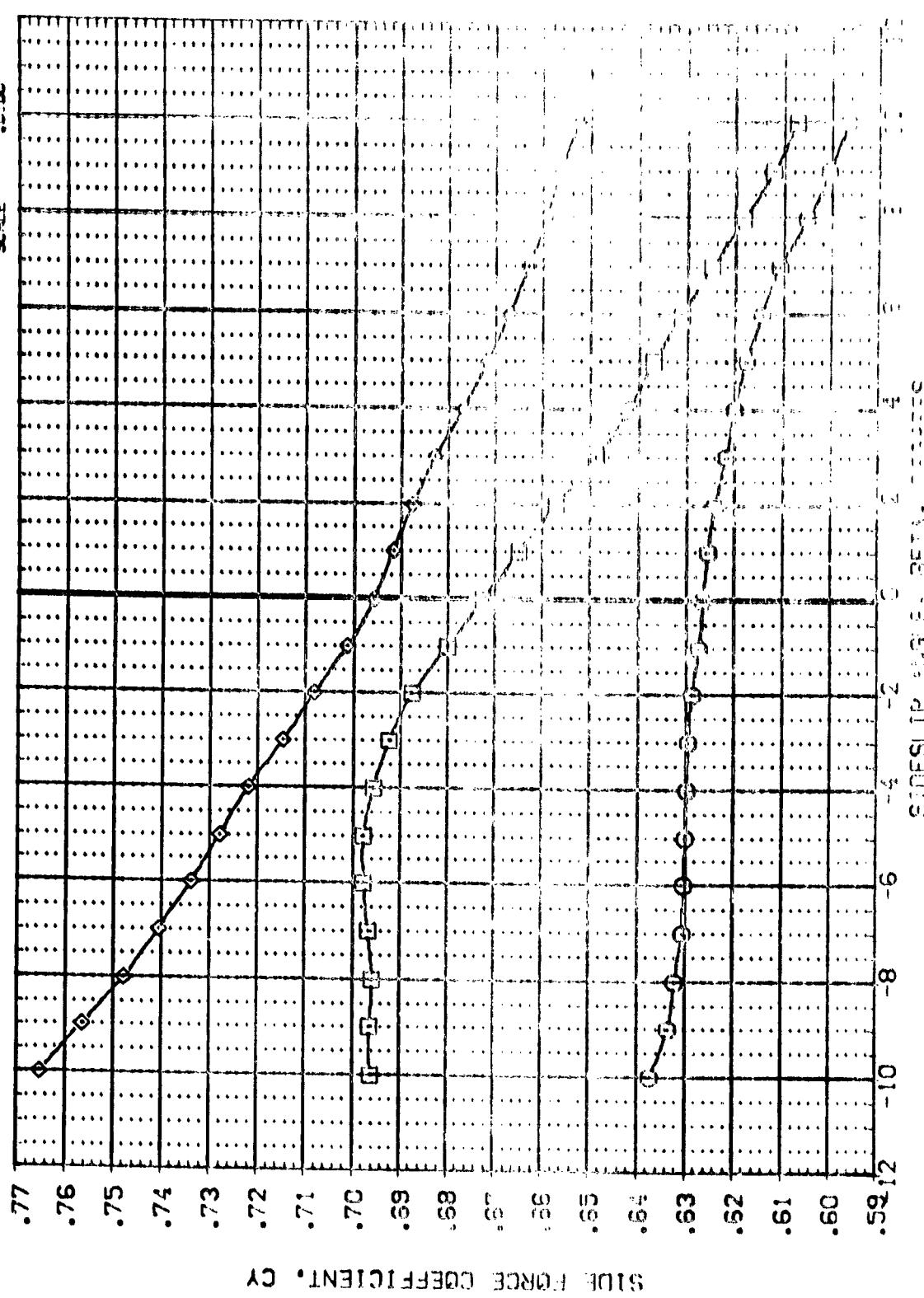


EFFECT OF SYMMETRICAL SRB SEPARATION ON C2B CHIEF 2D STABILITOS  
 (AUXILIARY) 4.50



DATA SET SPEED	CONFIGURATION DESCRIPTION
[STL03]	AEDC VA-1221(A-57) ORB/ET V/BOTH
[STL04]	AEDC VA-1221(A-57) ORB/ET V/BOTH
[STL05]	AEDC VA-1221(A-57) ORB/ET V/BOTH

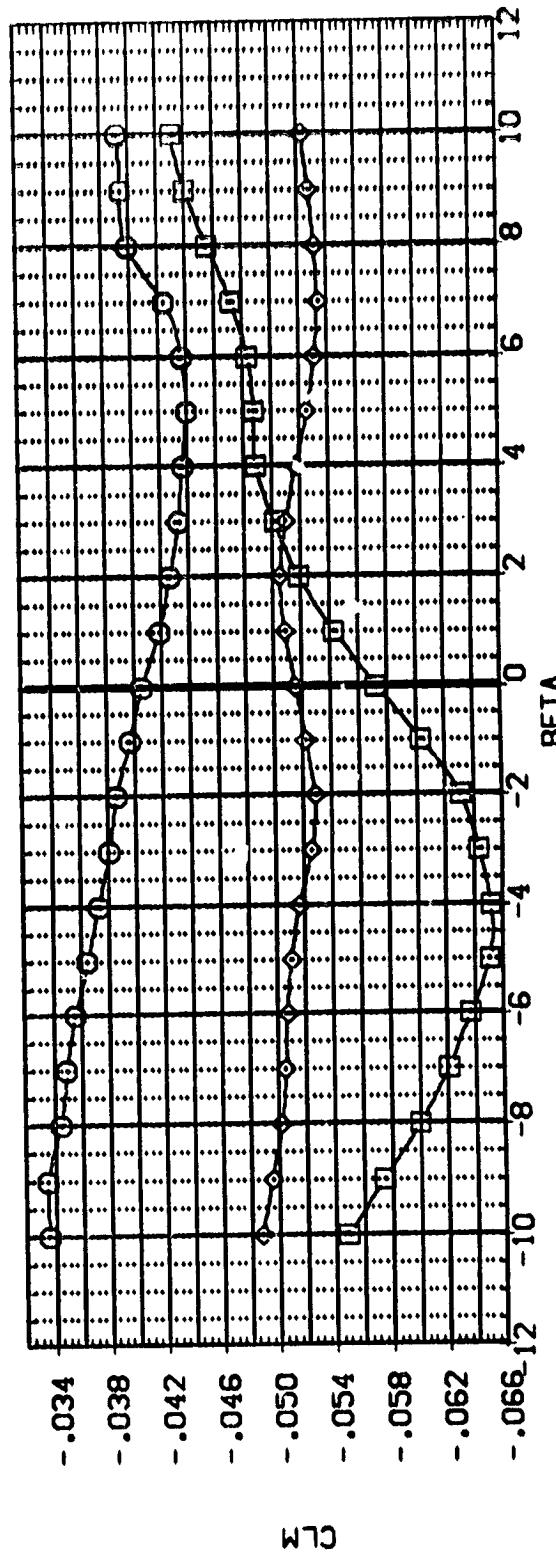
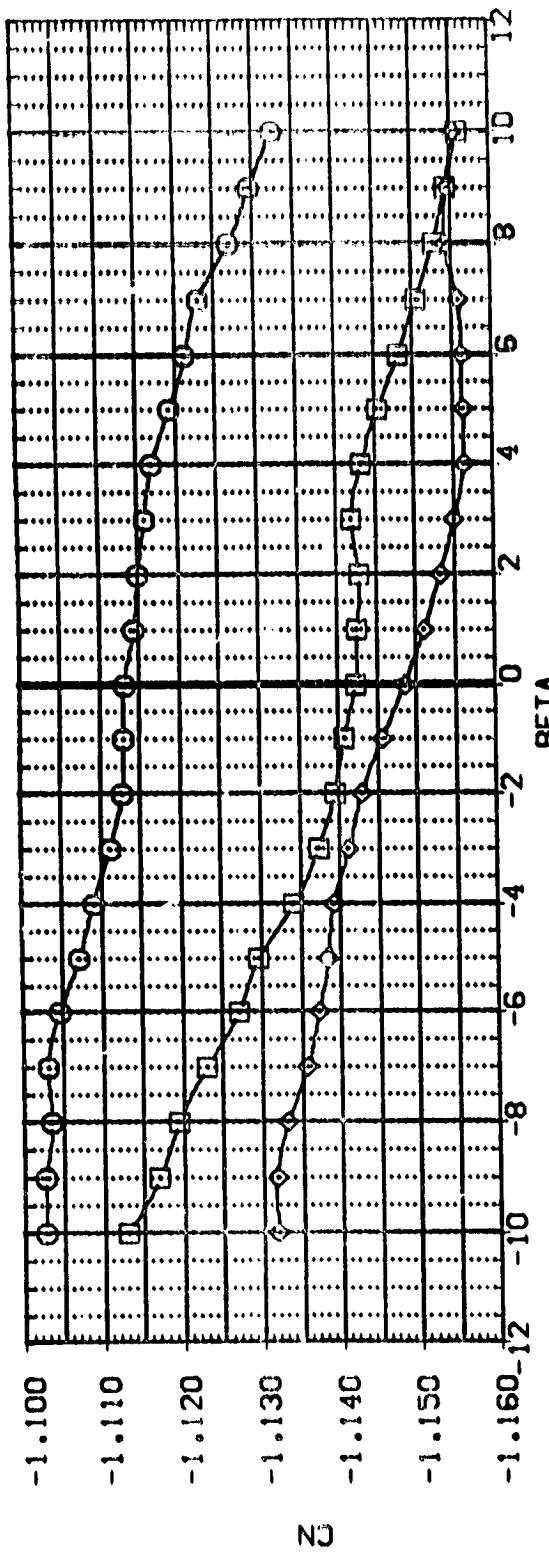
SEEDS	PAVL.	PT-JET	ALPHA	BETA-E	SEEDS
1.100	1.400	1500.000	.000	3500	3500
2.200	1.100	1500.000	.000	3500	3500
3.300	1.100	1500.000	.000	3500	3500
4.400	1.100	1500.000	.000	3500	3500



EFFECT OF SYMMETRICAL SRG SEPARATION ON COEFFICIENT OF DRAG

DATA SETS USED. CONFIGURATION DESCRIPTION  
 [STL033] AEDC VA-422(IA-57). GRB/ET V/BOTH SRB  
 [STL044] AEDC VA-422(IA-57). ORB/ET V/BOTH SRB  
 [STL055] AEDC VA-422(IA-57). JRB/ET V/BOTH SRB

	REF										
SPEED	1.100	1.400	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
R/V/L	2.200	1.400	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
Z	3.300	1.400	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
SCALE	2.742	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (RN/L=1.4)

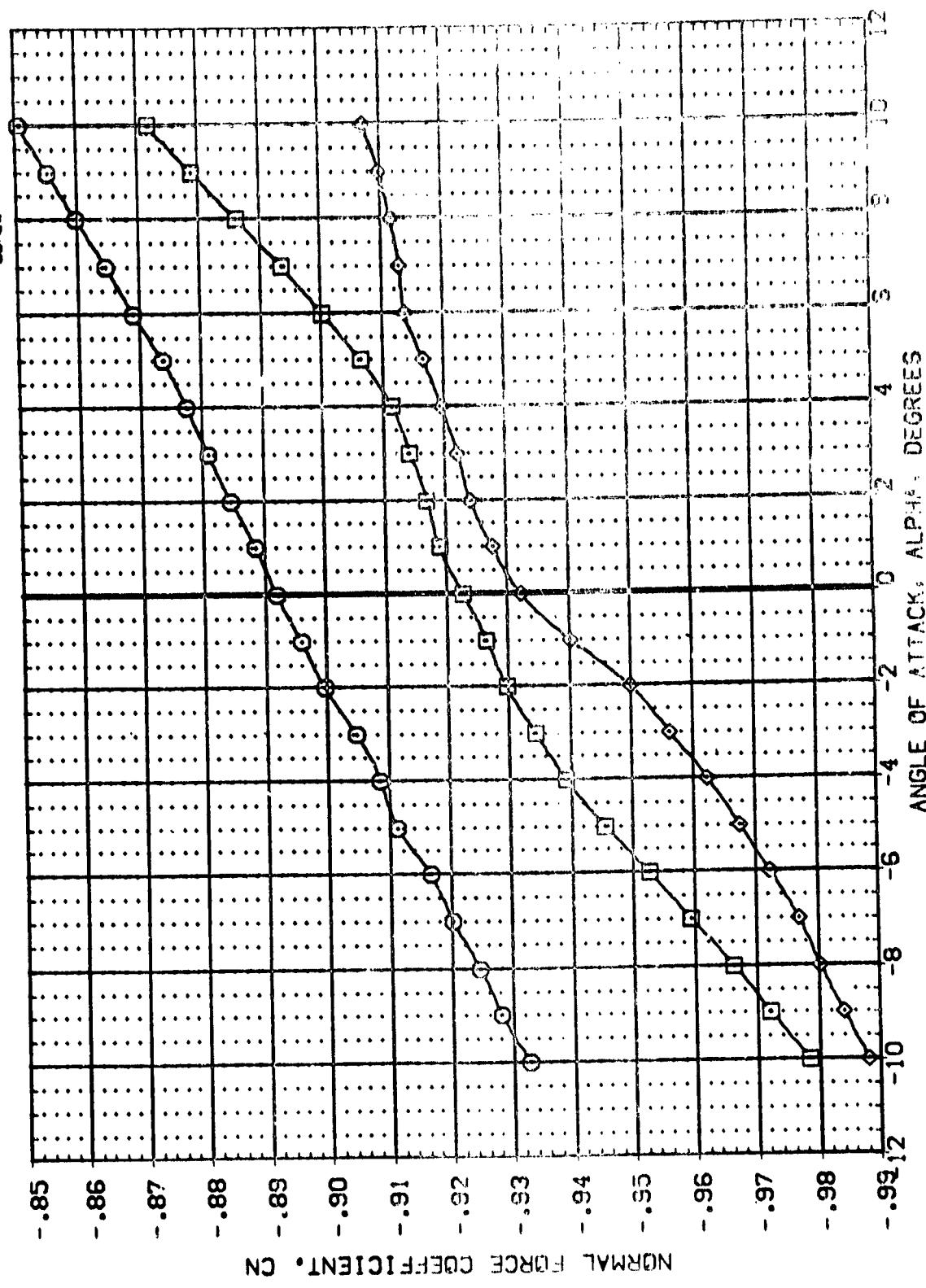
$C_A MACH = 4.50$

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 {STL008} O V/BOTH SRB  
 {STL049} □ V/BOTH SRB  
 {STL050} Δ V/BOTH SRB

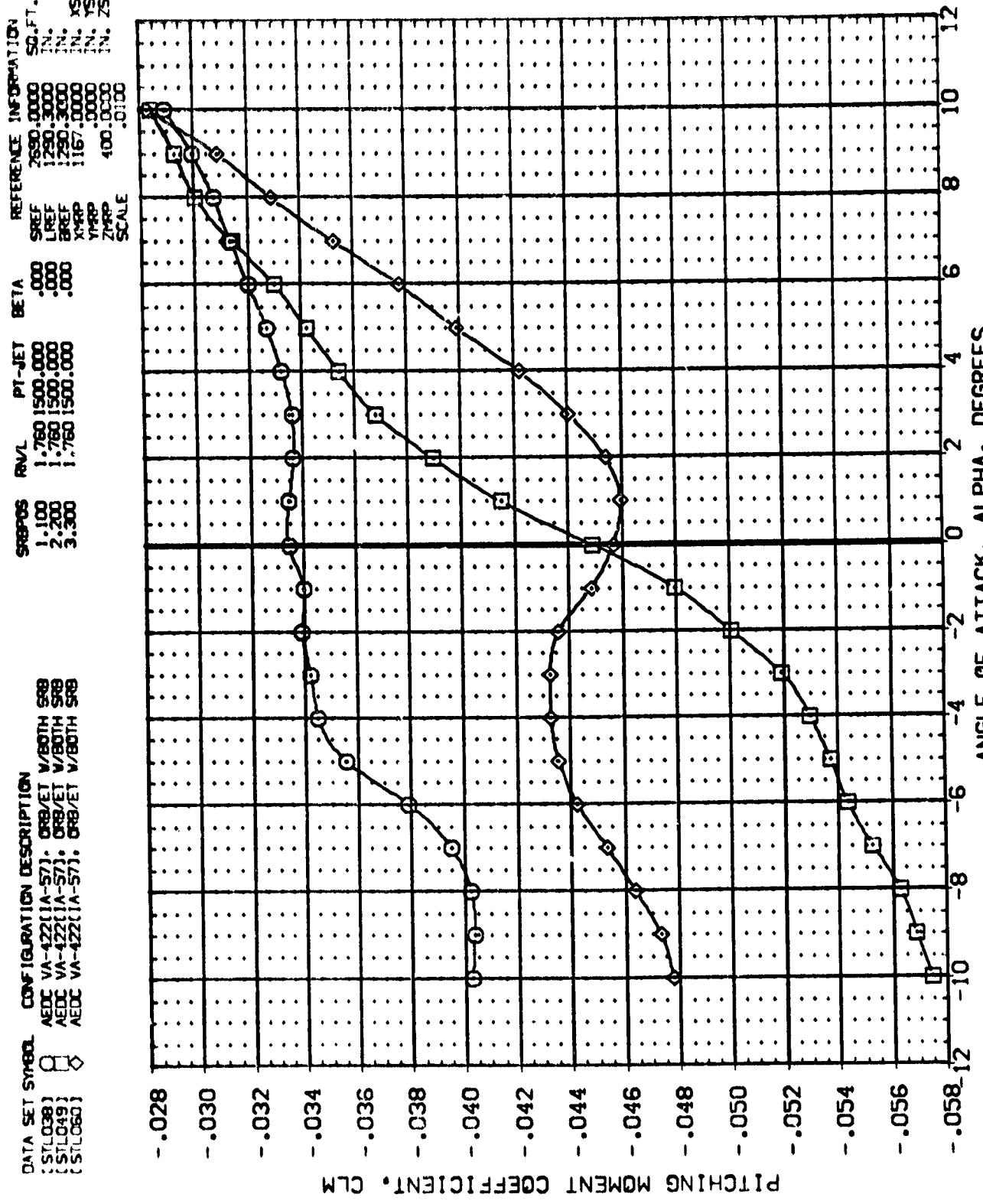
SRBPOS	AVL	PT-JET	BETA	REF	REFERENCE INCIDENCE
1.100	1.760	1500.000	.000	1380.000	50.0°
2.200	1.760	1500.000	.000	1250.200	45.0°
3.300	1.760	1500.000	.000	1167.000	40.0°

SCALE .0100



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHFACT. (PNA = 1.5, PT = 1.5, C<sub>A</sub> = 4.50)





REPRODUCTION OF THE  
ORIGINAL PAGE IS POOR

EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACT. (RN/L=1.76, PI-JET=1500)

CAMACH - 4.50

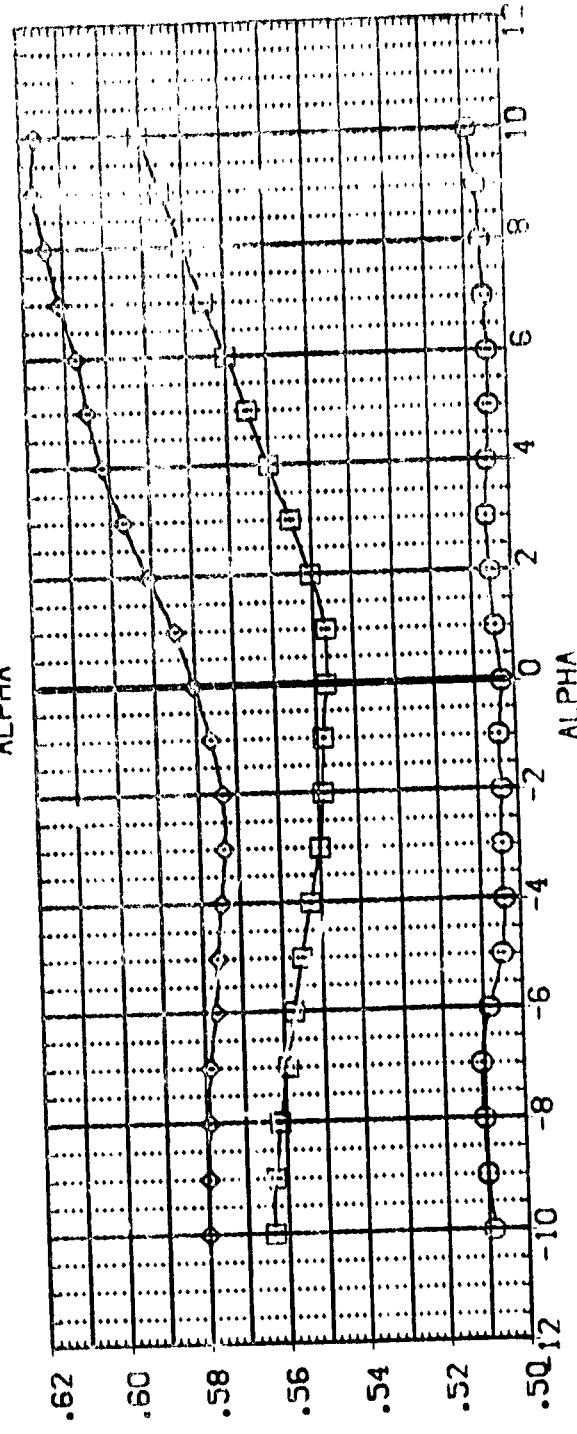
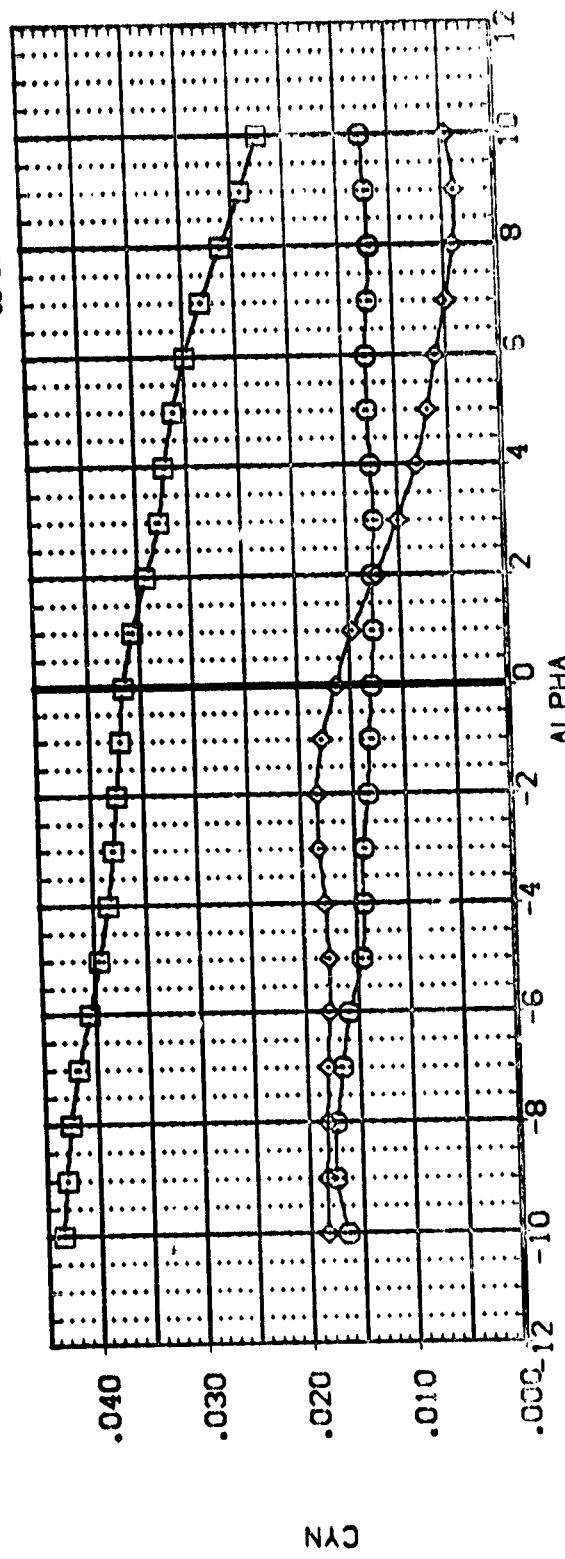
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DATA SET SYMBOL      CONFIGURATION DESCRIPTION

[STL038]	AEDC VA-4221 [A-571], ORB/ET V/BOTH SRB
[STL049]	AEDC VA-4221 [A-571], ORB/ET V/BOTH SRB
[STL060]	AEDC VA-4221 [A-571], ORB/ET V/BOTH SRB

REFERENCE INFORMATION  
 STABOS RVAL PT-JET BETA REF. 7690.0000 50.FT.  
 1.100 1.760 1500.000 .000 SREF 1290.0000 IN.  
 2.200 1.760 1500.000 .000 LREF 1290.0000 IN.  
 3.300 1.760 1500.000 .000 BREF 1290.0000 IN.  
 XREF 1.67 .0000 IN.  
 YREF .400 .0000 IN.  
 ZREF .0100 .0100 IN.

SCALE

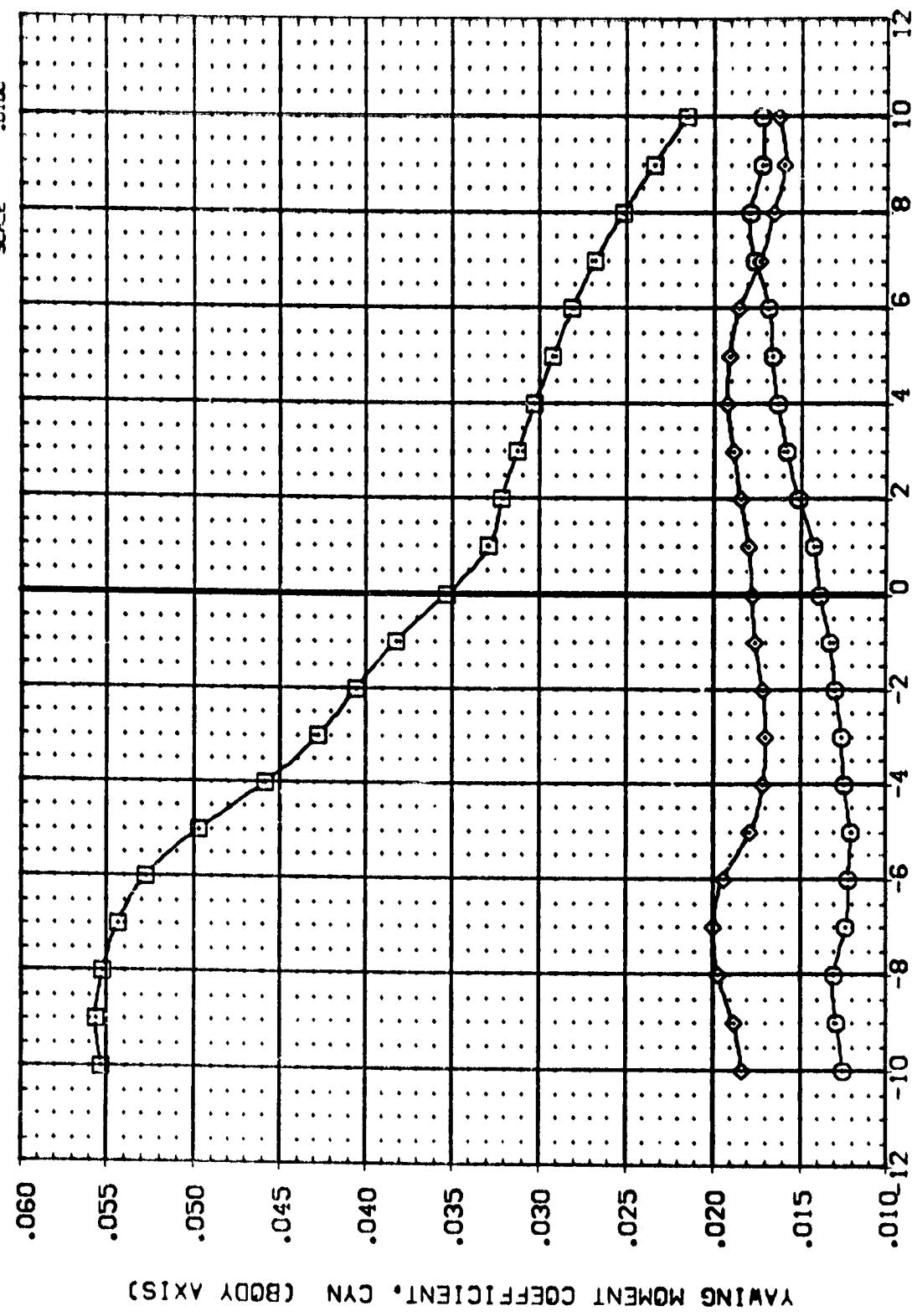


EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS  
 Cz vs. CzH      4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[S]-039	□	SRB/ET V/BOTH SRB
[S]-050	○	SRB/ET V/BOTH SRB
[S]-051	○	SRB/ET V/BOTH SRB

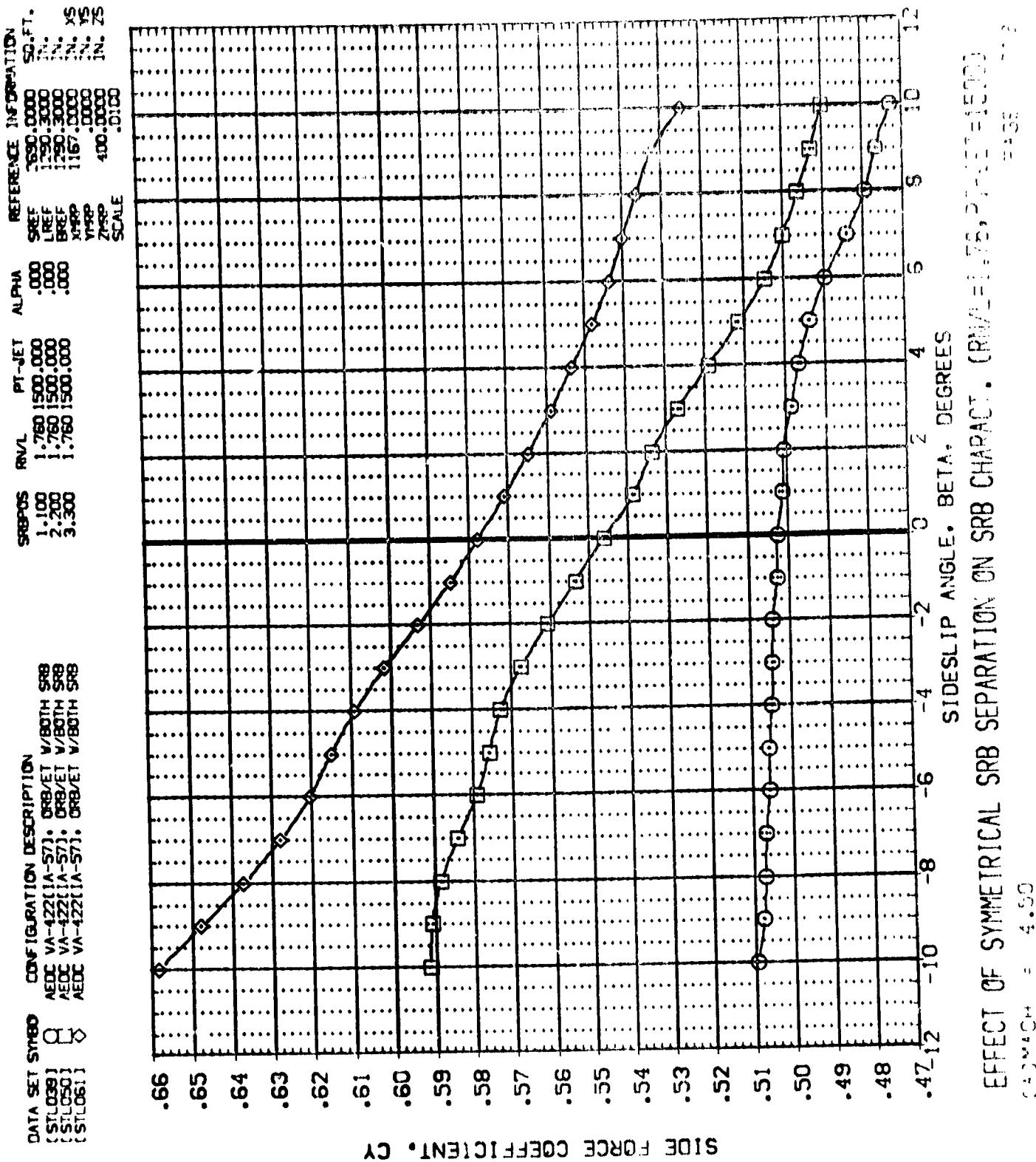
REFERENCE INFORMATION  
 RNL PT-JET ALPHA SREF SG FT.  
 1.100 1.760 1500.000 .000 SREF 1580.000 IN  
 2.200 1.760 1500.000 .000 LREF 1520.300 IN  
 3.300 1.760 1500.000 .000 BREF 1520.300 IN  
 XMP 116.000 IN  
 YMP .0000 IN  
 ZMP 400.000 IN  
 SCALE .010



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACT. (RN/L=1.76, PT-JET=1500)

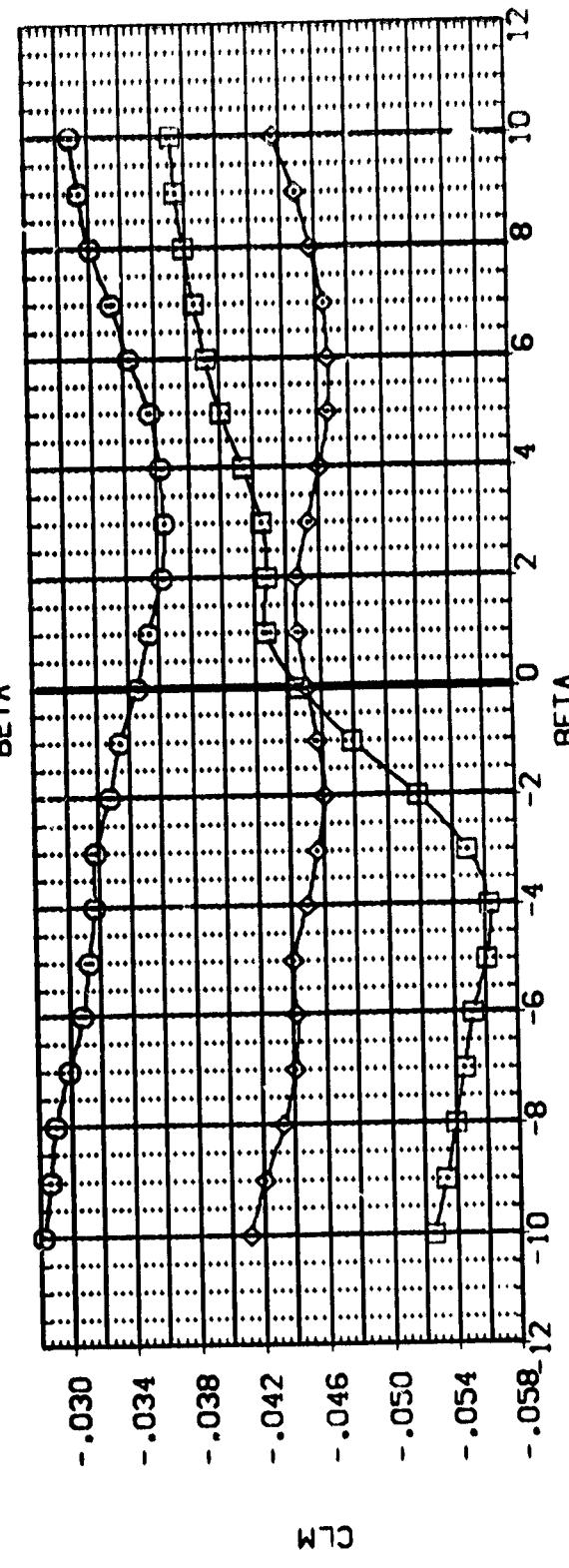
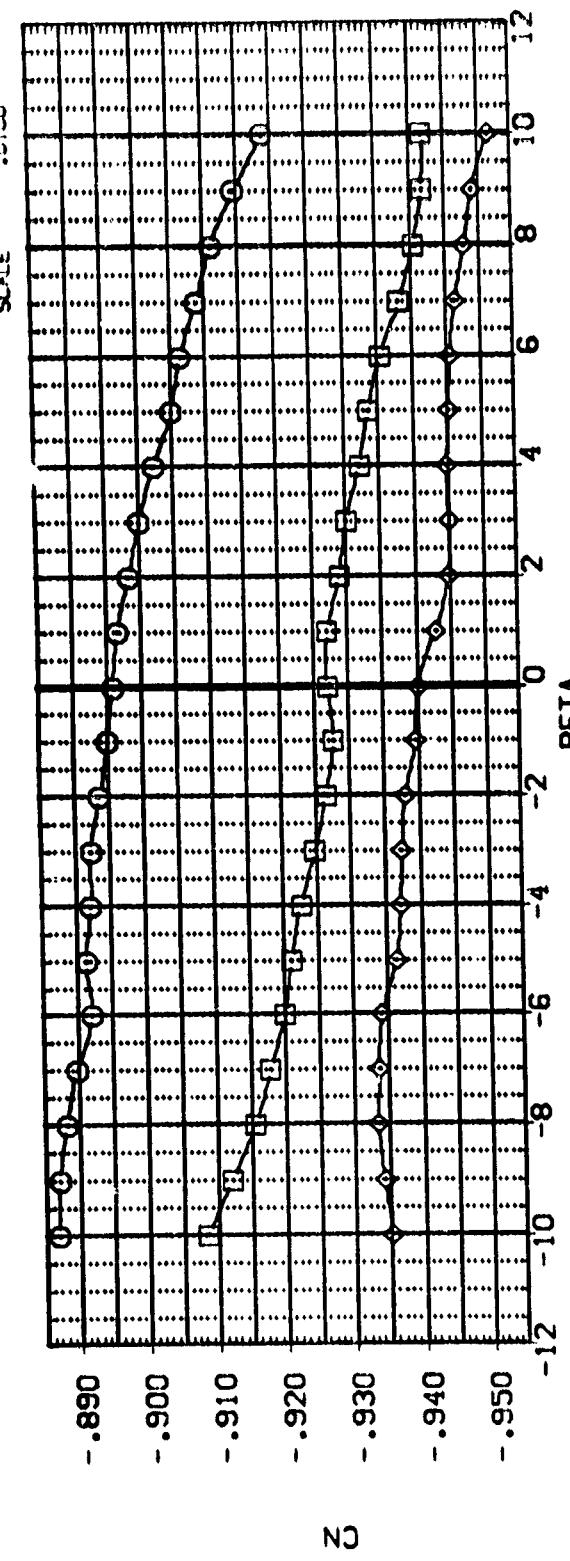
(A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL039] AEDC VA-422/[A-571], 098/ET V/BOTH SRB  
 [STL050] AEDC VA-422/[A-571], 098/ET V/BOTH SRB  
 [STL061] AEDC VA-422/[A-571], 098/ET V/BOTH SRB

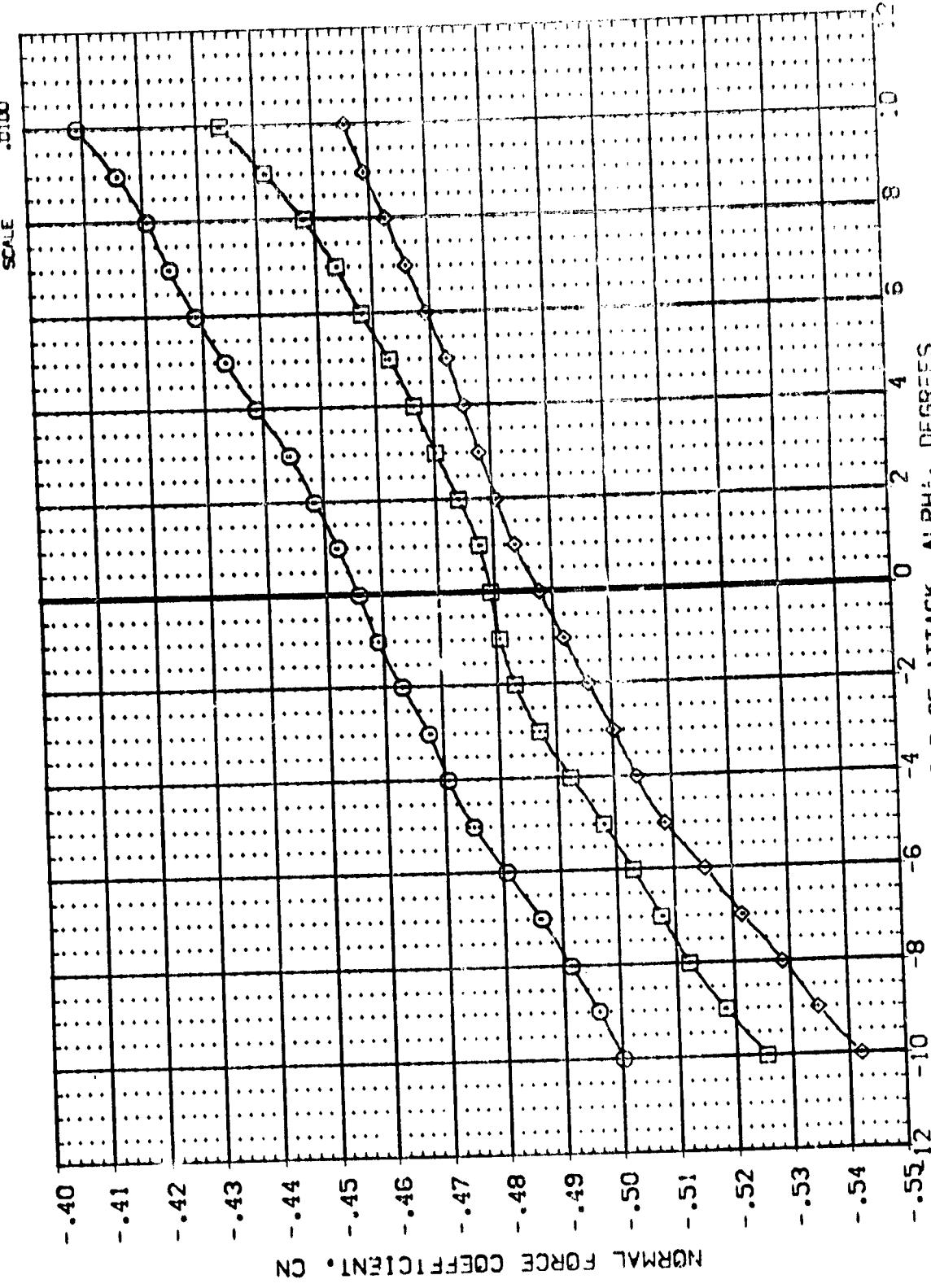
REFS 1.100 1.760 1500 .000 .000 SREF 2680 .000 SCFT.  
 2.200 1.760 1500 .000 .000 LREF 1250 .000  
 3.300 1.760 1500 .000 .000 BREF 1250 .000  
 XREF 1.67 .000 YREF 400 .000 ZREF 400 .000  
 SCALE



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACT. (RN/L=1.76, PI-JET=1500)  
 $(\Delta)_{ACH} = 4.50$   
 $\rightarrow SE \quad 2.19$

DATA SET SYMBOL. CONFIGURATION DESCRIPTION  
 (STL036) AEDC VA-422(LIA-57). GRB/ET V/BOTH SRB  
 (STL047) AEDC VA-422(LIA-57). GRB/ET V/BOTH SRB  
 (STL058) AEDC VA-422(LIA-57). GRB/ET V/BOTH SRB

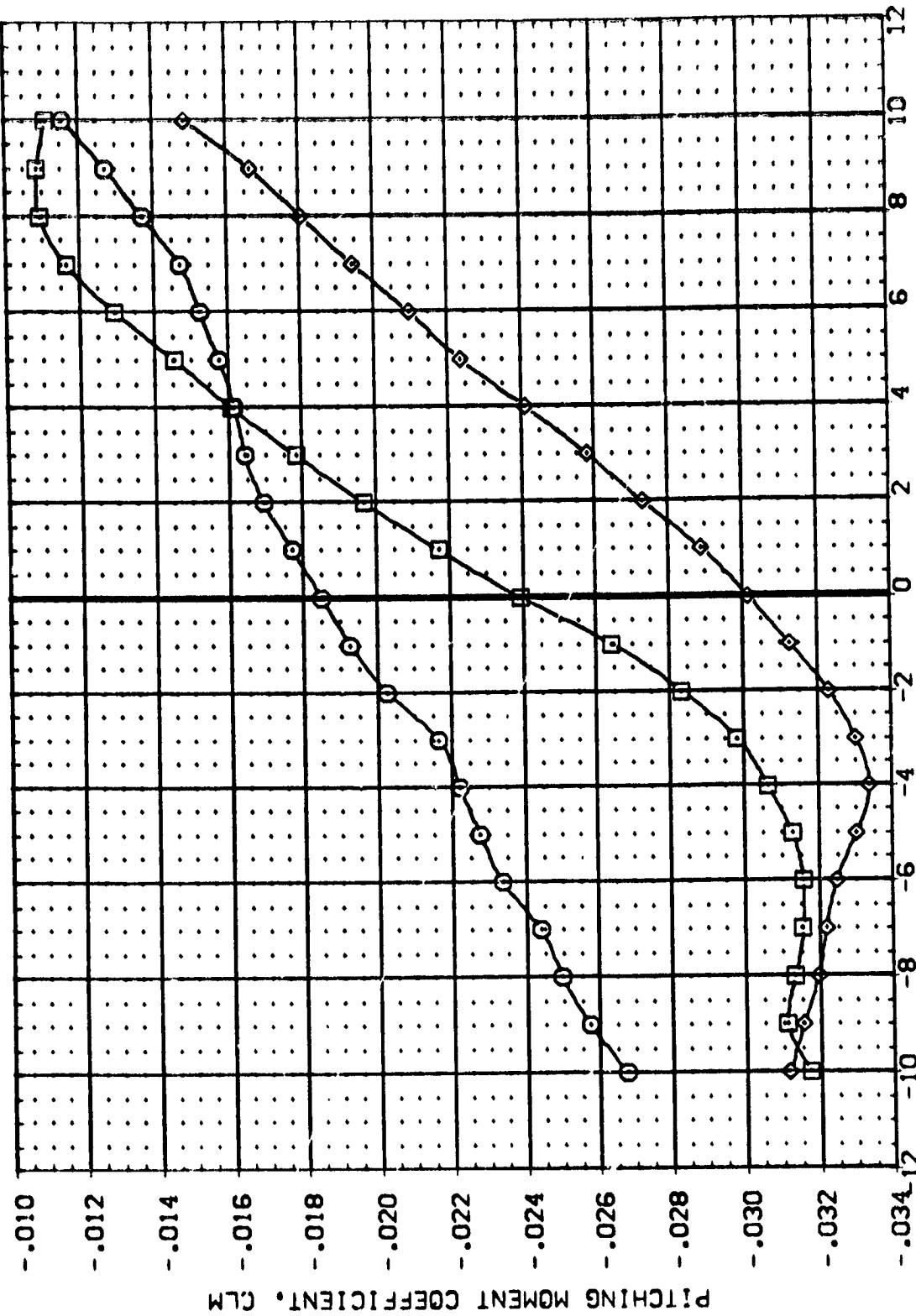
SRBPOS REV/L PT-SET BETA REFERENCE INFORMATION  
 1.100 1.760 750.000 .000 SREF 750.000 SD.FT.  
 2.200 1.760 750.000 .000 SREF 1250.3000 IN.  
 3.300 1.760 750.000 .000 SREF 1250.3000 IN.  
 X5 Y5 Z5 P5 V5 T5 R5  
 SCALE .0100



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACT. COEFF. = 1.5; PT-SET = 50.  
 (A) MAX. - .50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (STD036) AECC VA-422 (VA-571). ORB/ET V/80TH SRB  
 (STD047) AECC VA-422 (VA-571). ORB/ET V/80TH SRB  
 (STD058) AECC VA-422 (VA-571). ORB/ET V/80TH SRB

SRPOS	RNL	PT-JET	BETA	REFERENCE INFORMATION
1.100	1.750	750.000	.000	SREF 2690 .0000
2.200	1.750	750.000	.000	LREF 1250 .3000
3.300	1.750	750.000	.000	BREF 1220 .3000
				J167 .0000
				XRP 1000 .0000
				YRP 1000 .0000
				ZRP 400 .0000
				SCALE .0.00



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACT. (RN/L=1.76, PT-JET=750)

C<sub>A</sub>MACH = 4.50

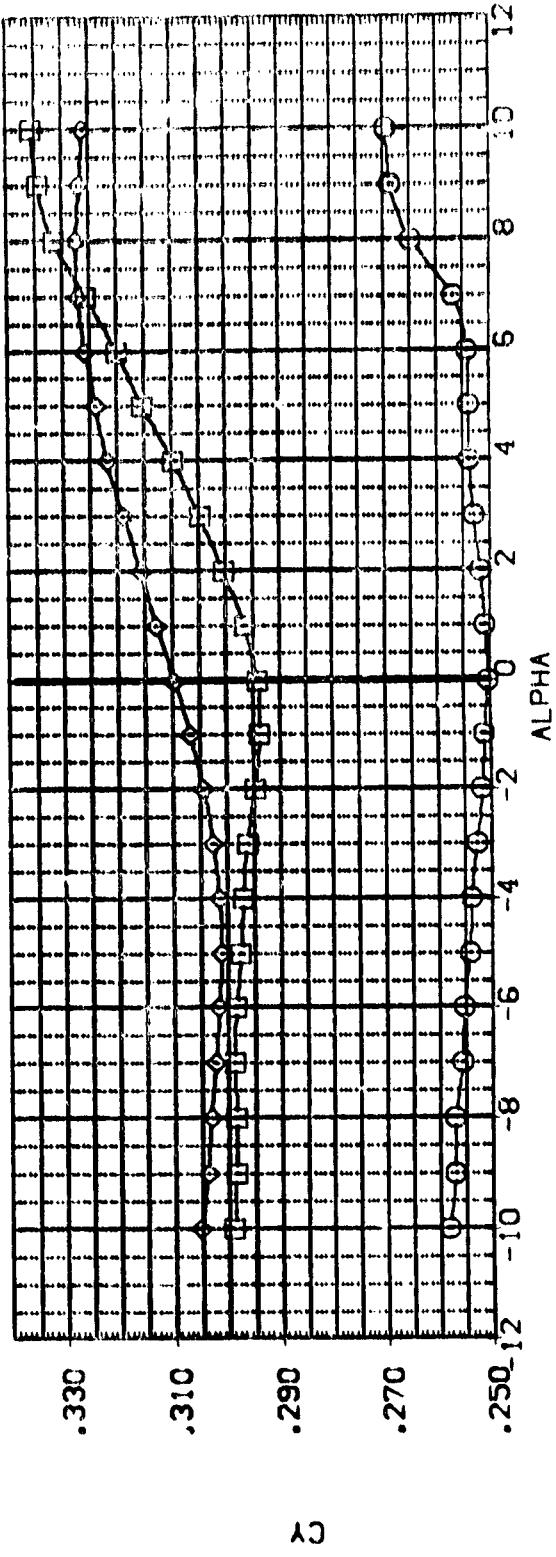
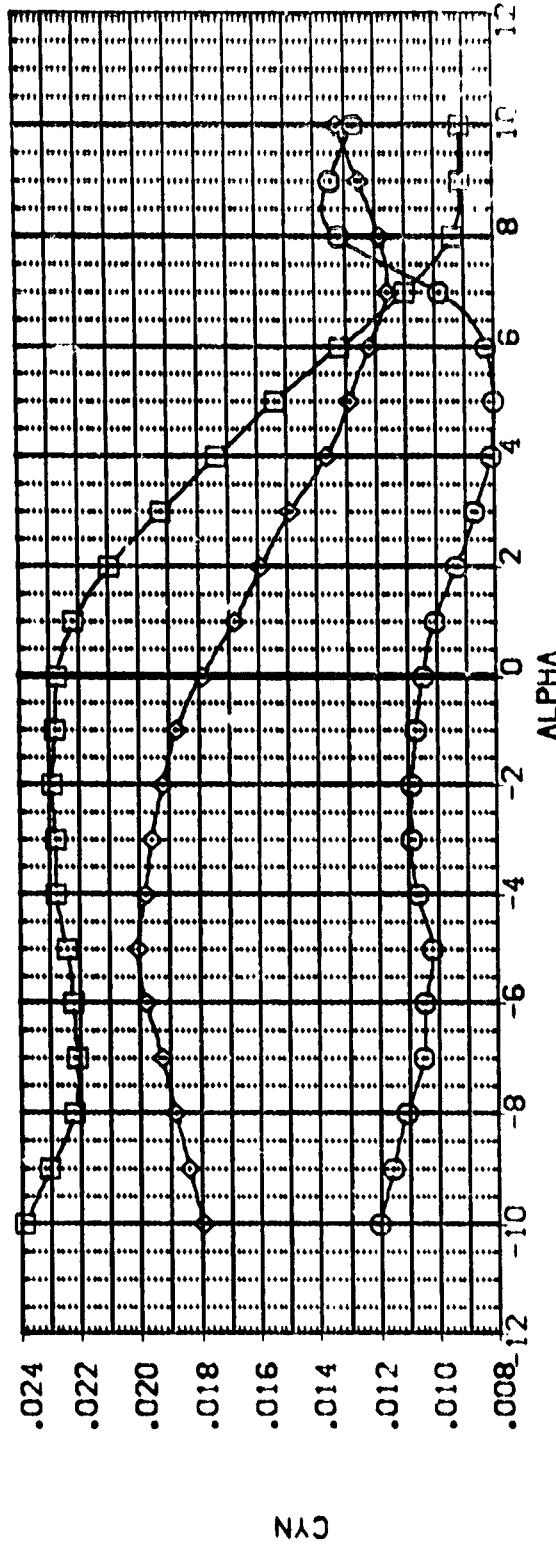
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DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SET 036) AEDC VA-422(IA-57). ORB/ET V/BOTH SRB  
 (SET 047) AEDC VA-422(IA-57). ORB/ET V/BOTH SRB  
 (SET 058) AEDC VA-422(IA-57). ORB/ET V/BOTH SRB

SRBPOS RNL PT-JET BETA REFERENCE INFORMATION

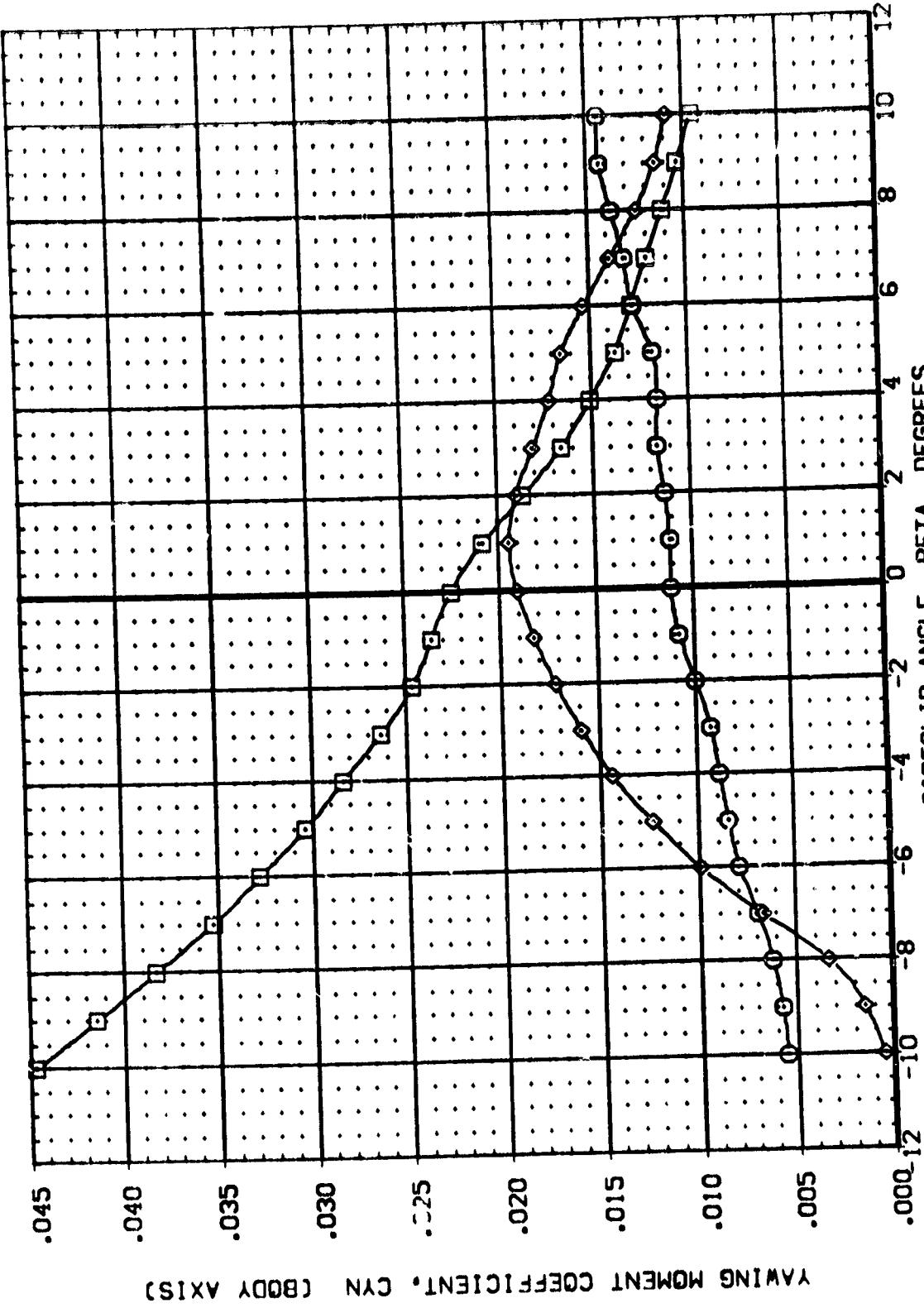
1.100	1.750	.000	SCRF	250.0000
2.200	1.750	.000	LCRF	300.0000
3.300	1.750	.000	SCRF	190.0000
			LCRF	160.0000
			XREF	167.0000
			YREF	300.0000
			ZREF	400.0000
			WREF	400.0000
			SCALE	.0100



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTER. (RNL/L = 1.0, SCRT = 150)  
 $C_{D, MAX} = 4.50$



SREF	REFERENCE IN U.S.A.			S.F.T.
	PT-JET	ALPHA	REF	
1.100	1.760	.070	2890-3000	12.5
2.200	1.760	.000	1290-3000	12.5
3.300	1.760	.000	1290-3000	12.5
			1167-2000	12.5
			YTFP	12.5
			2743P	40.000
			GT-15	20.000

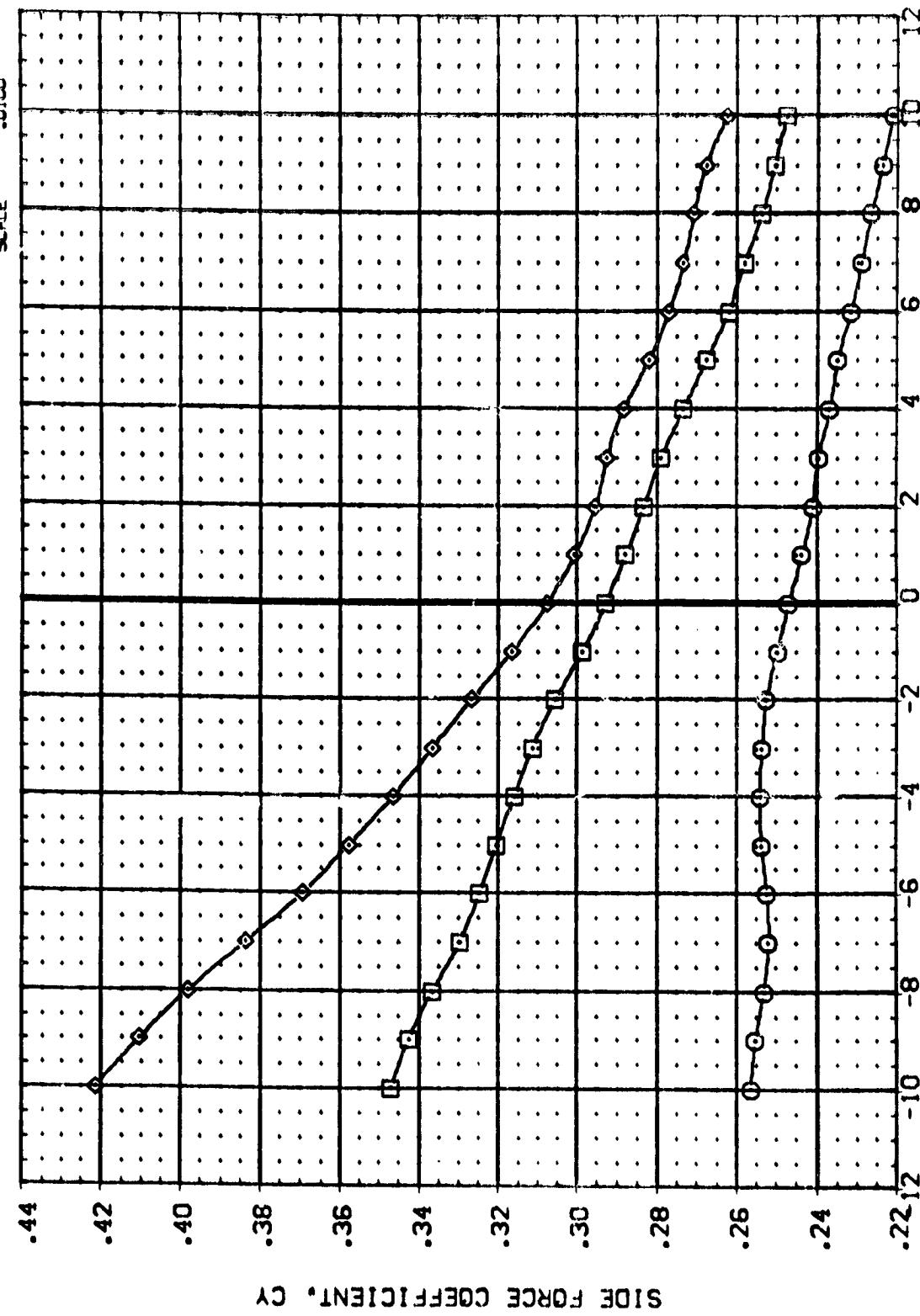


SIDESLIP ANGLE, SECTION 2 (BNV) = 1.76, PI-JET=750

EFFECT OF SYMETHYL

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL037] AEDC VA-422 [IA-57] ORB/ET V/BOTH SRB  
 [STL048] AEDC VA-422 [IA-57] ORB/ET V/BOTH SRB  
 [STL059] AEDC VA-422 [IA-57] ORB/ET V/BOTH SRB

	SIDESLIP	RVL	PI-JET	ALPHA	REFERENCE	INFEATID.
1.100	1.760	750,000	.000	SREF	2650,0000	SD.FT.
2.200	1.760	750,000	.000	LREF	1780,3000	IN.
3.300	1.760	750,000	.000	BREF	1250,3000	IN.
				XREF	1:67,1000	IN.
				YREF	400,0000	IN.
				ZREF	400,0000	IN.
				SCALE	.0100	



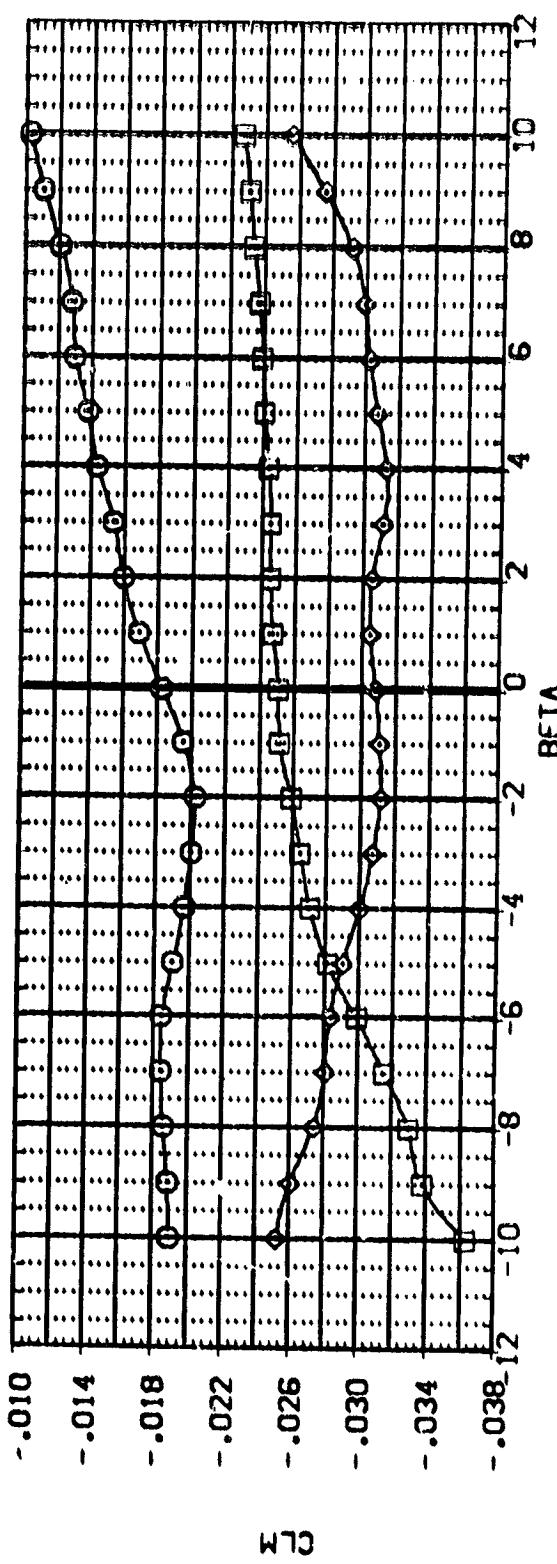
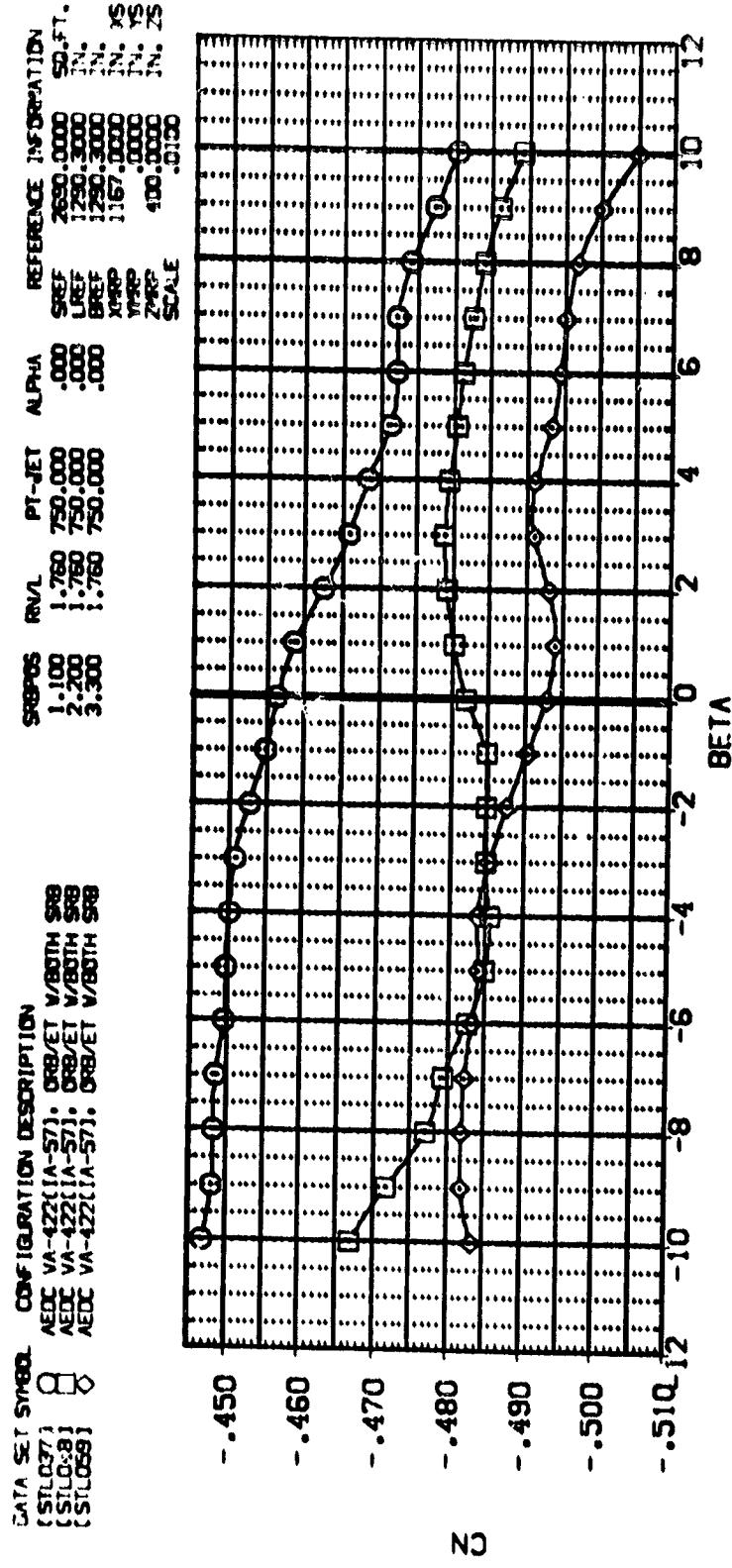
EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACT. (RNL=1.76, PI-JET=750)

(A) MACH = 4.50

2:5E 22:

DATA SET SYMBOL CONFIGURATION DESCRIPTION

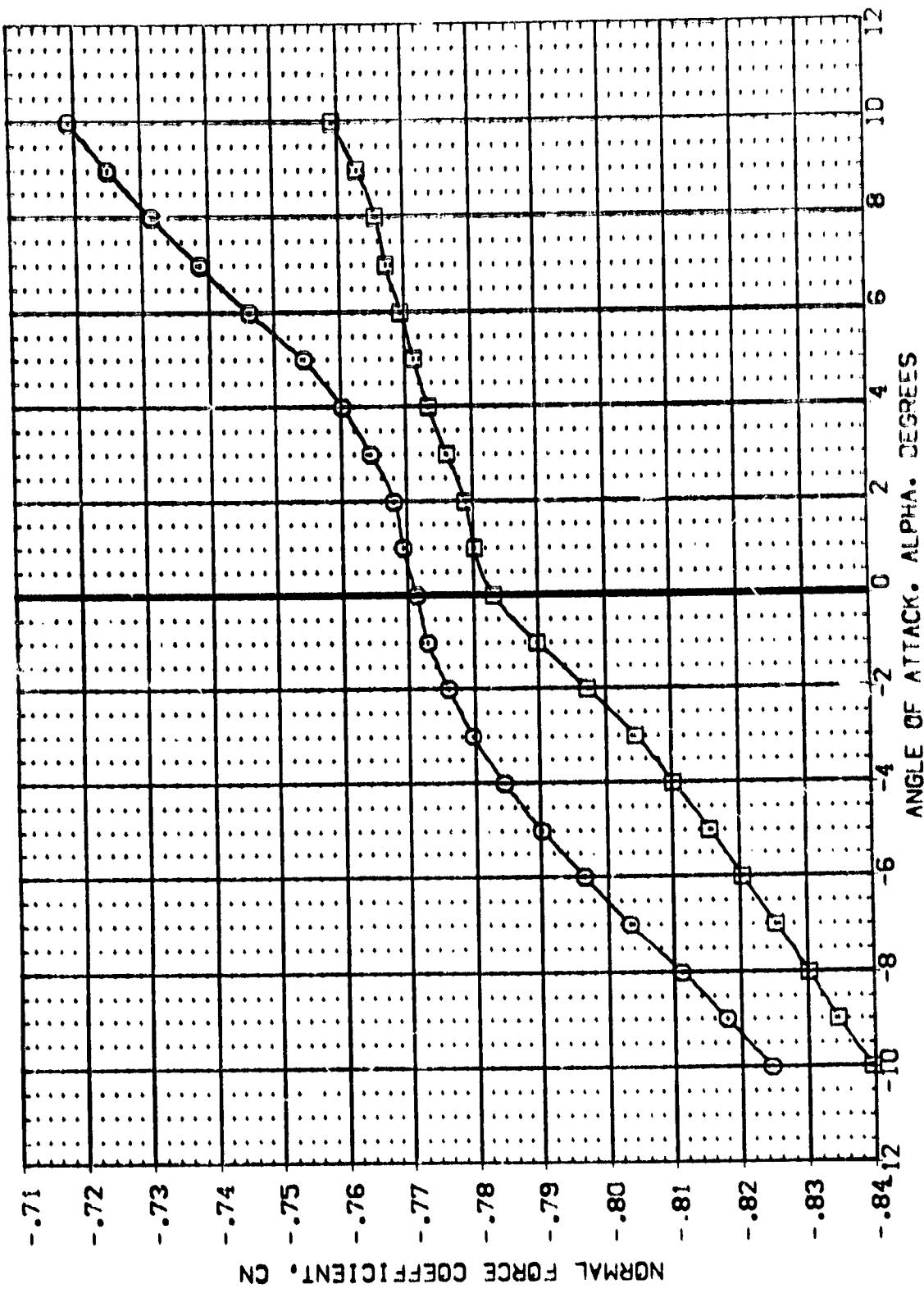
(STL077)	NEPE VA-422(IA-57) ORB/ET V/BOTH SRB
(STL078)	NEPE VA-422(IA-57) ORB/ET V/BOTH SRB
(STL079)	NEPE VA-422(IA-57) ORB/ET V/BOTH SRB



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACT. (RM/L=1.76, PI-JET=750)

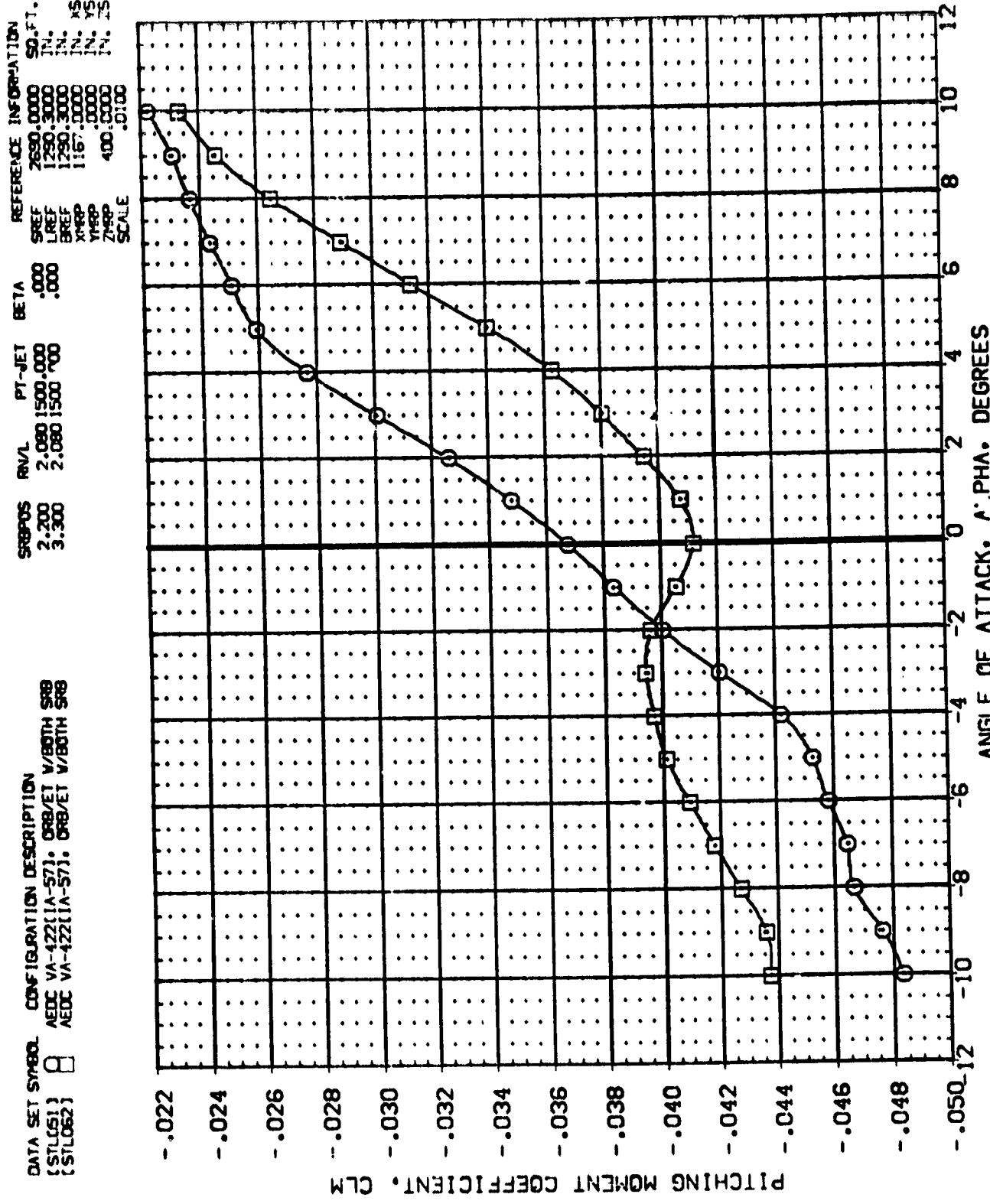
CAPMACH = 4.50

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR



## EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL051] AEDC VA-422(IA-571) SRB/ET V/200TH SRB  
 [STL052] AEDC VA-422(IA-571) SRB/ET V/300TH SRB

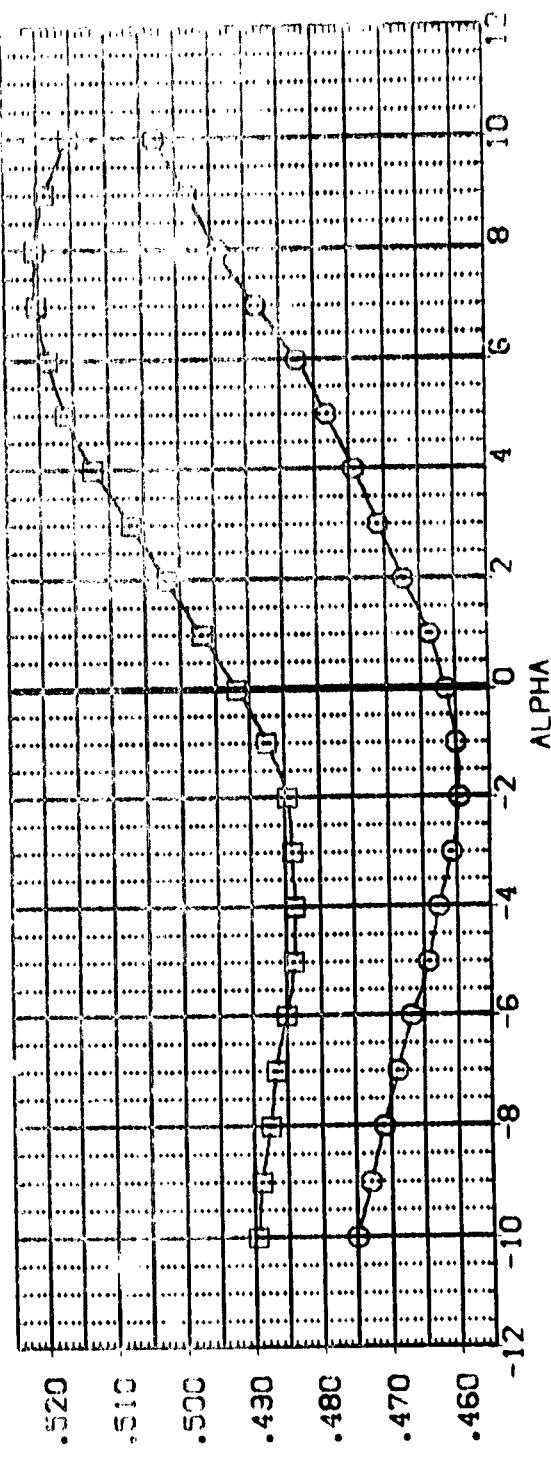
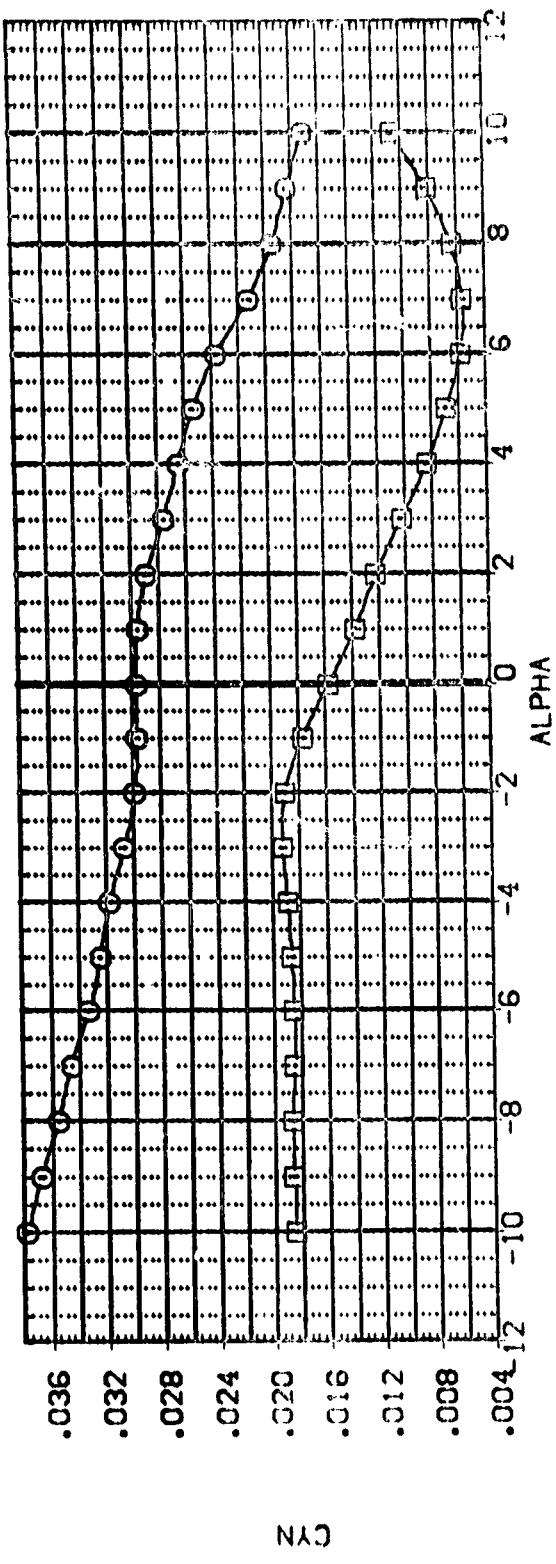


EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS ( $RN/L = 2.08$ )

(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL051] ORB/ET V/BOTH SRB  
 [STL062] AEDC VA-422[IA-57]. AEDC VA-422[IA-57].

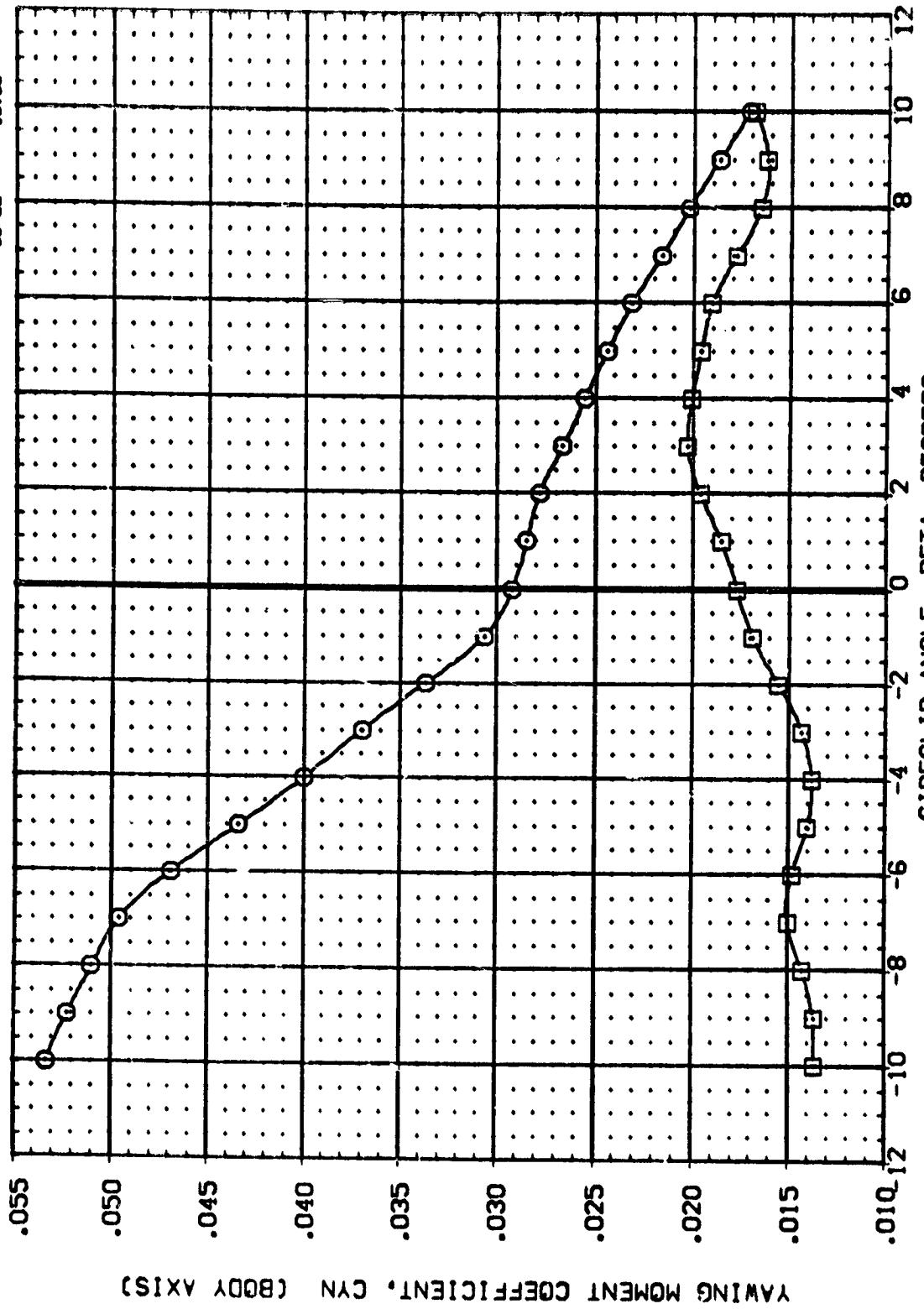
SRBPOS RVL PT-JET BETA REFERENCE INFORMATION  
 2:200 2,000 1500.000 .000 SREF 2800 3000 SQ.FT.  
 3:300 2,000 1500.000 .000 LREF 1290 3000 IN.  
 BREF 1290 3000 IN.  
 XHPP 1.67 .0000 IN. 25  
 YHPP 400.0000 IN.  
 ZHPP .0100 IN.  
 SCALE



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (CRN/L=2.03)  
 (AJMACH : 4.50) D:GE : 278

DATA SET SYMBOL. CONFIGURATION DESCRIPTION  
 [STL062] AEDC VA-422/[A-571]. ORB/ET V/50TH SRB  
 [STL063] AEDC VA-422/[A-571]. ORB/ET V/50TH SRB

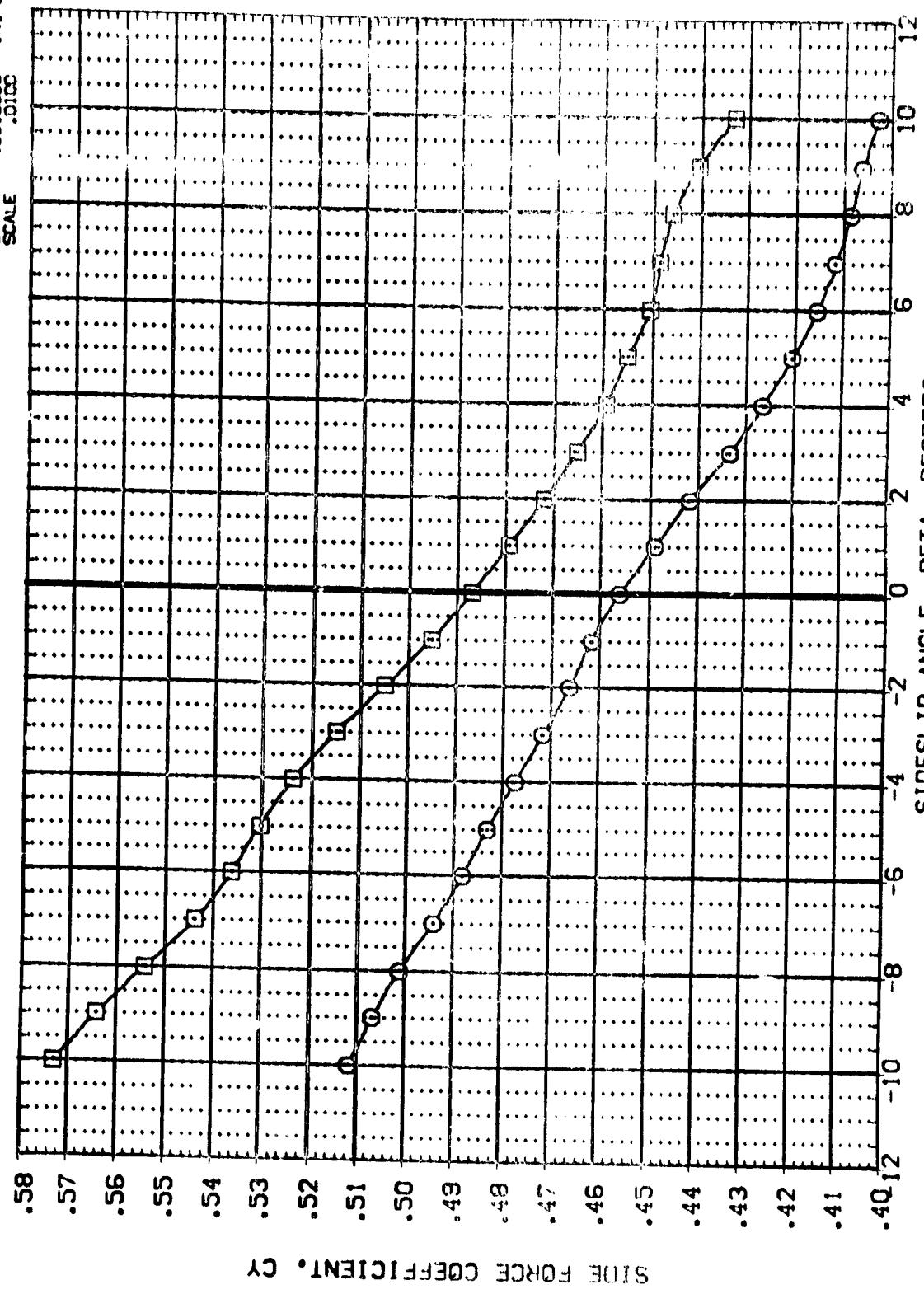
REFERENCE INFORMATION  
 SRFL 2850.0000 SQ.FT.  
 LREF 1250.3000 IN.  
 BREF 1250.3000 IN.  
 XHBP 1167.0000 IN.  
 YHBP 1000.0000 IN.  
 ZHBP 400.0000 IN.  
 SCALE .0100



EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (CRN/L=2.08)  
 $(\text{MACH}) = 4.50$

DATA SET SNO. 8 CONFIGURATION DESCRIPTION  
 [STL052] AEDC VA-42211A-571, GRB/ET V/BOTH SRB  
 [STL053] AEDC VA-42211A-571, GRB/ET V/BOTH SRB

REF. LE. INFEATON  
 SR05 269.0000 SQ. FT.  
 LREF 39.3000 IN.  
 BREF 29.3000 IN.  
 XCP .67.0000 IN.  
 YCP .00.0000 IN.  
 ZCP .01.00 IN.  
 SCALE

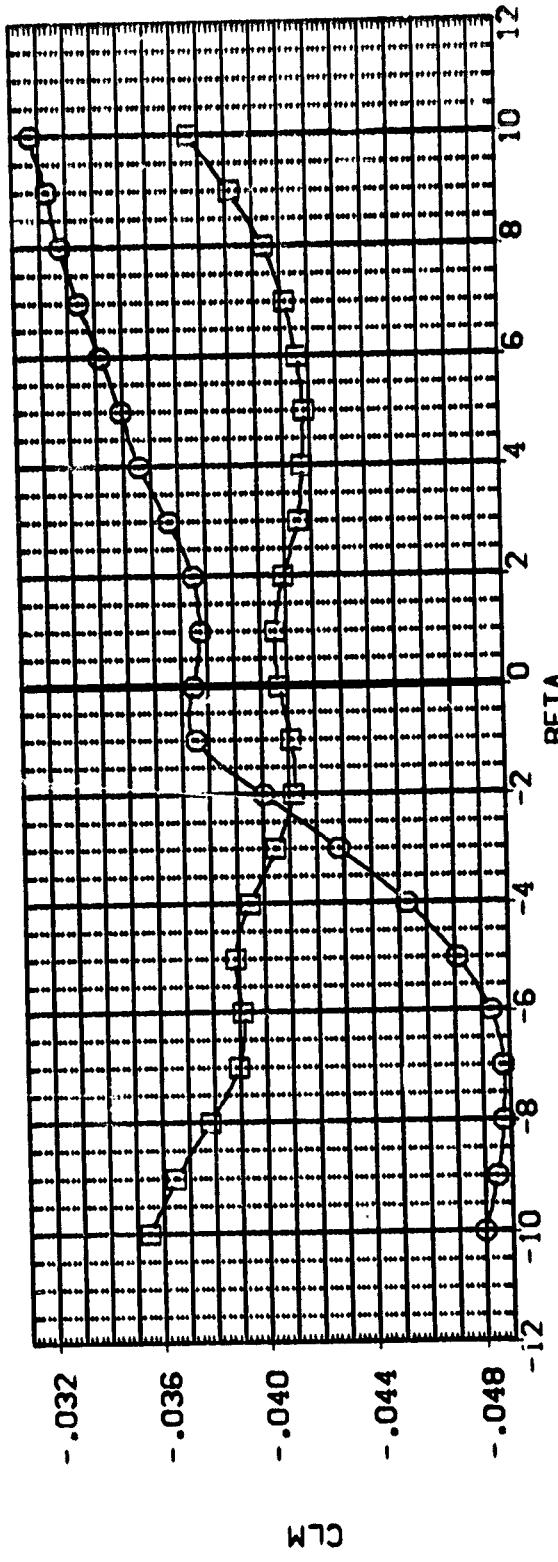
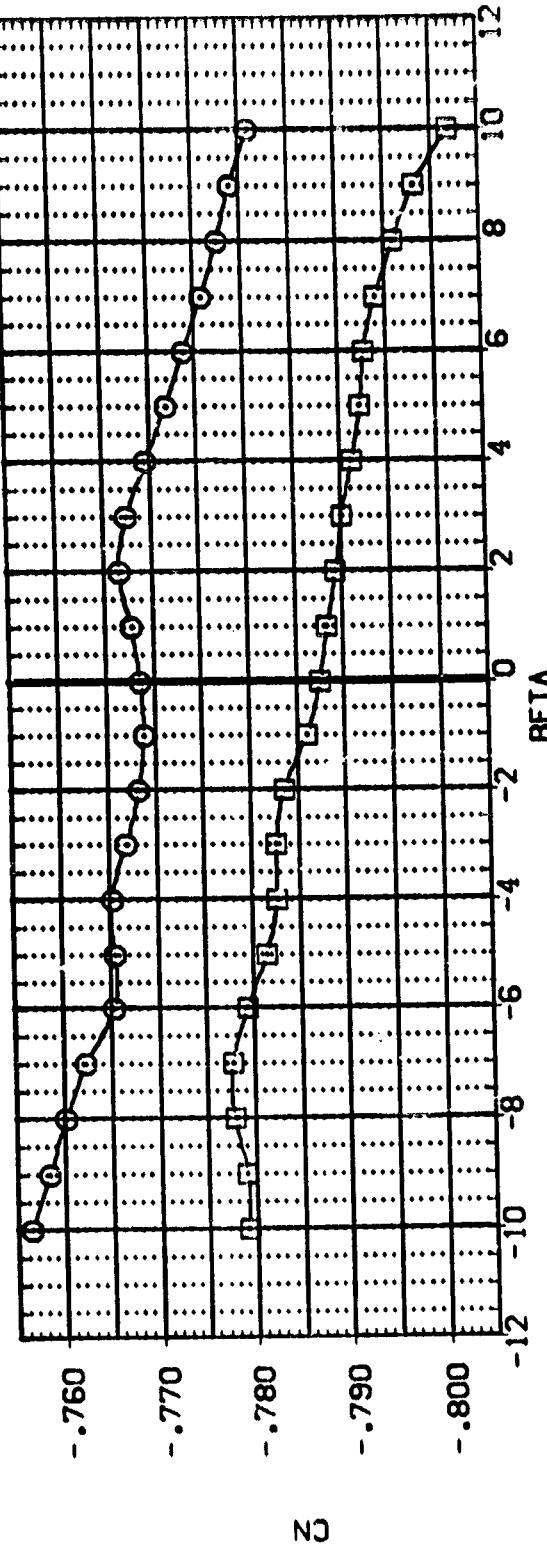


EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (RM/L=2, 3)  
 $(A)^{1/4}C_H = 4.50$

GE 232

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 STL-052      AEDC VA-4221(LA-57). ORB/ET V/BOTH SRB  
 STL-053      AEDC VA-4222(LA-57). GRB/ET V/BOTH SRB

SRBPOS	RNL	PT-JET	ALPHA	REFERENCE INFORMATION
2.200	2.000	1500.000	:000	SREF 2690.0000 SQ.FT.
3.300	2.000	1500.000	:000	LREF 1290.3000 IN.
				BREF 1290.3000 IN.
				XMRP 1167.0000 IN.
				YMRP .0000 IN.
				ZMRP 400.0000 IN.
				SCALE .0100

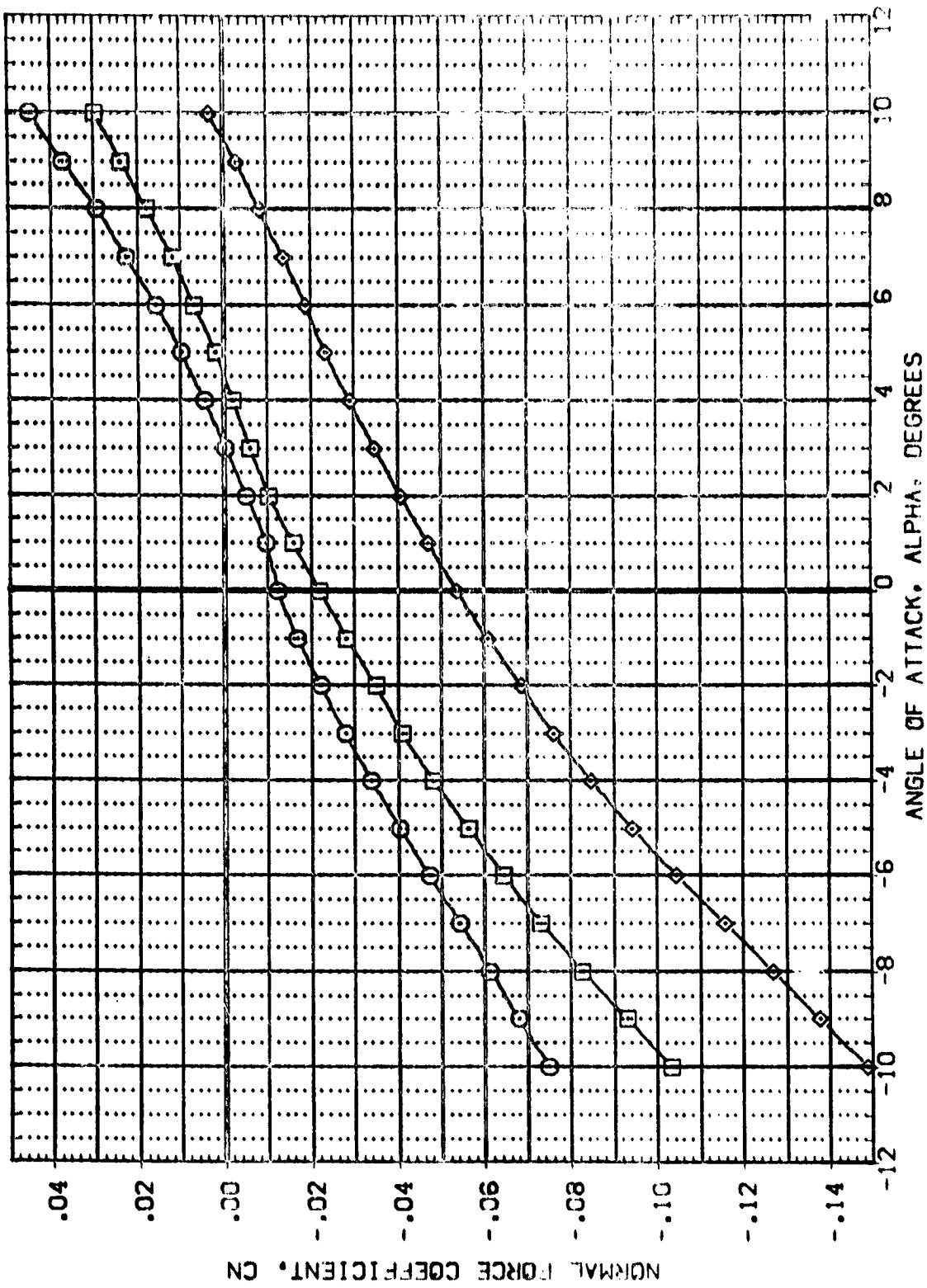


EFFECT OF SYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (RNL=2.08)

(AJMACH = 4.50)

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL034] AEDC VA-422[IA-57]. ORB/ET V/BOTH S68  
 [STL035] AEDC VA-422[IA-57]. ORB/ET V/BOTH S68  
 [STL036] AEDC VA-422[IA-57]. ORB/ET V/BOTH S68

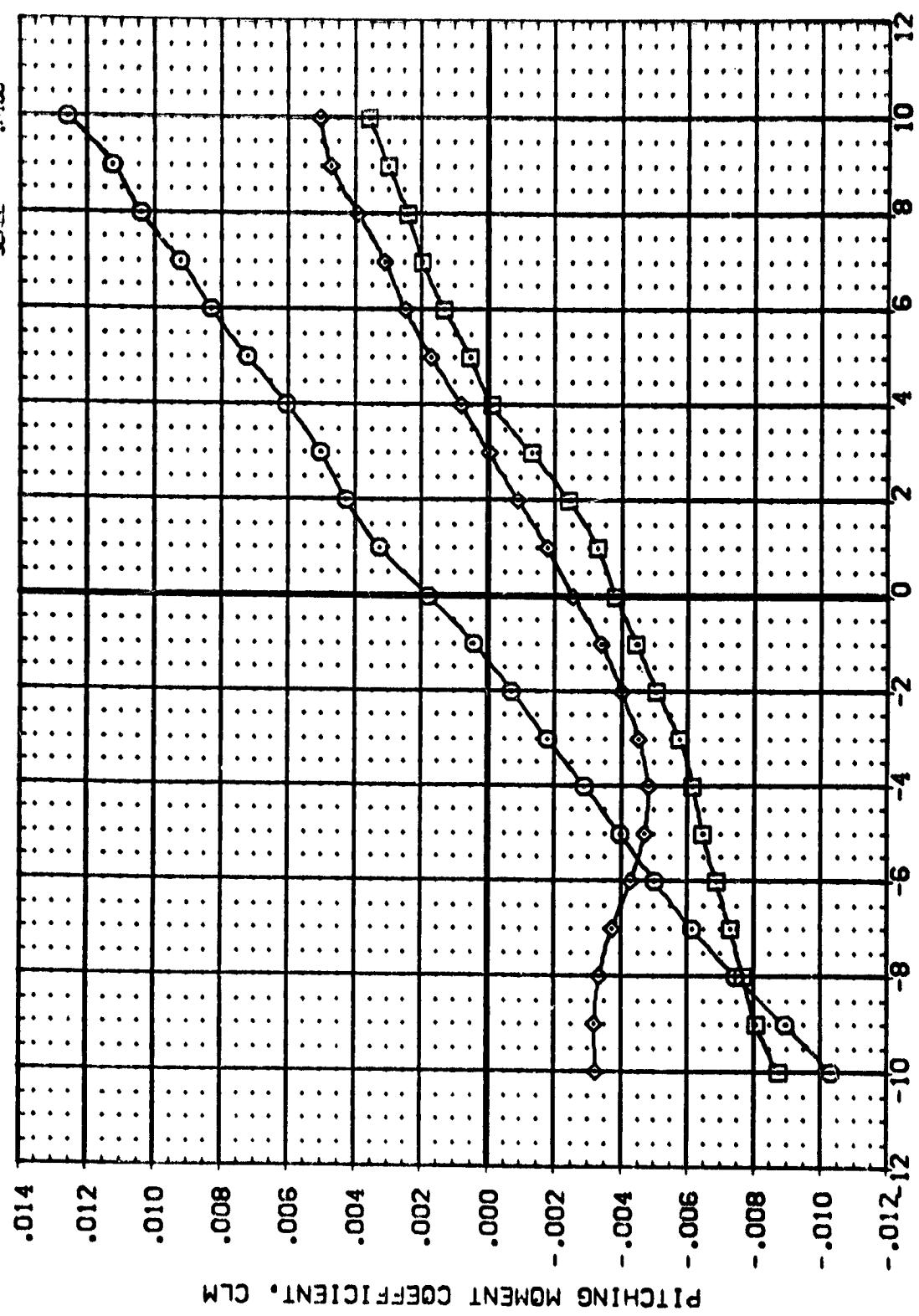
SETUPS	RNL	P1-JET	BETA	REFERENCE IN DEGREES
1.100	1.730	.000	.000	280.000 SQ.FT.
2.200	1.760	.000	.000	120.300 IN.
3.300	1.780	.000	.000	120.300 IN.
				116.700 IN.
				YTRP .0000 IN.
				ZTRP .400.0000 IN.
				SCALE .01.000



EFFECT OF SYMMETRICAL SRB W/0 PLUMES SEPARATION ON SRB CHARACTER. (CN,L=1,76)  
 (A)MACH = 4.50 PAGE 737

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL034] AEDC VA-122([IA-57]). GRB/ET V/BOTH SRB  
 [STL045] AEDC VA-122([IA-57]). GRB/ET V/BOTH SRB  
 [STL056] AEDC VA-422([IA-57]). GRB/ET V/BOTH SRB

SRB POS	R/V.L.	PT-JET	BETA	REFERENCE INFORMATION
1.100	1.760	.000	.000	SREF 2650.0000 SQ.FT.
2.200	1.760	.000	.000	LREF 1250.3000 IN.
3.300	1.760	.000	.000	BREF 1250.3000 IN.
				XREF 1167.0000 IN.
				YREF 400.0000 IN.
				ZREF 2700.0000 IN.
				SCALE .1100



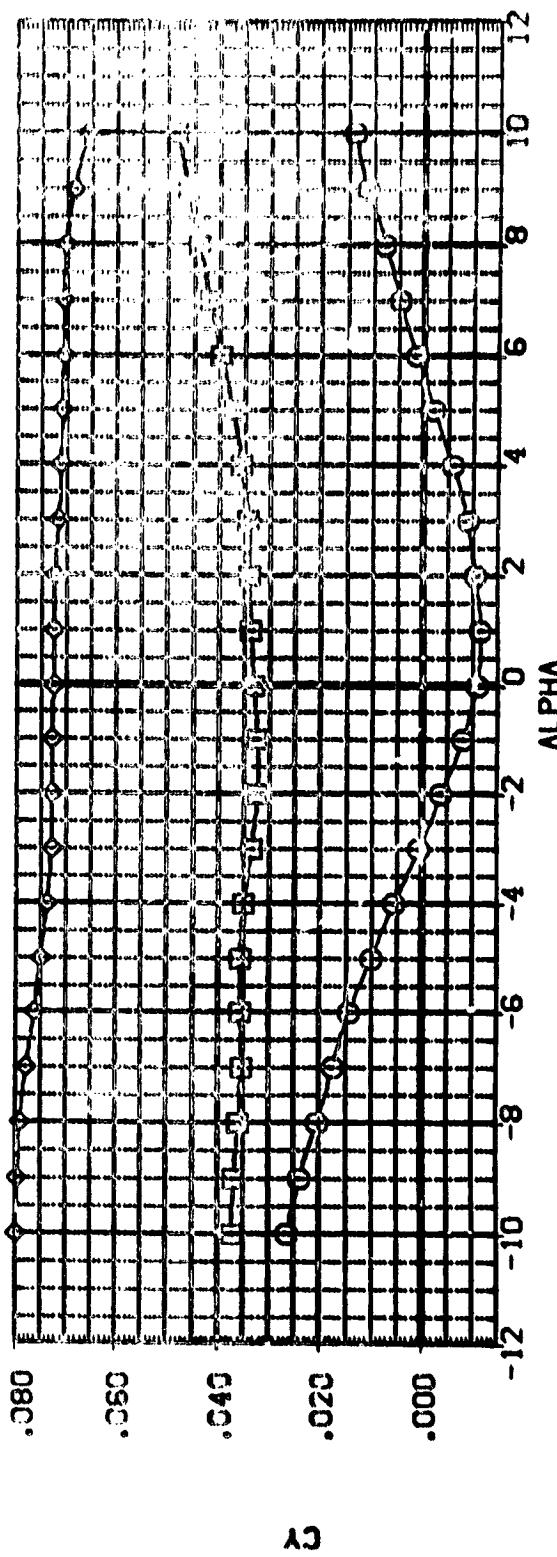
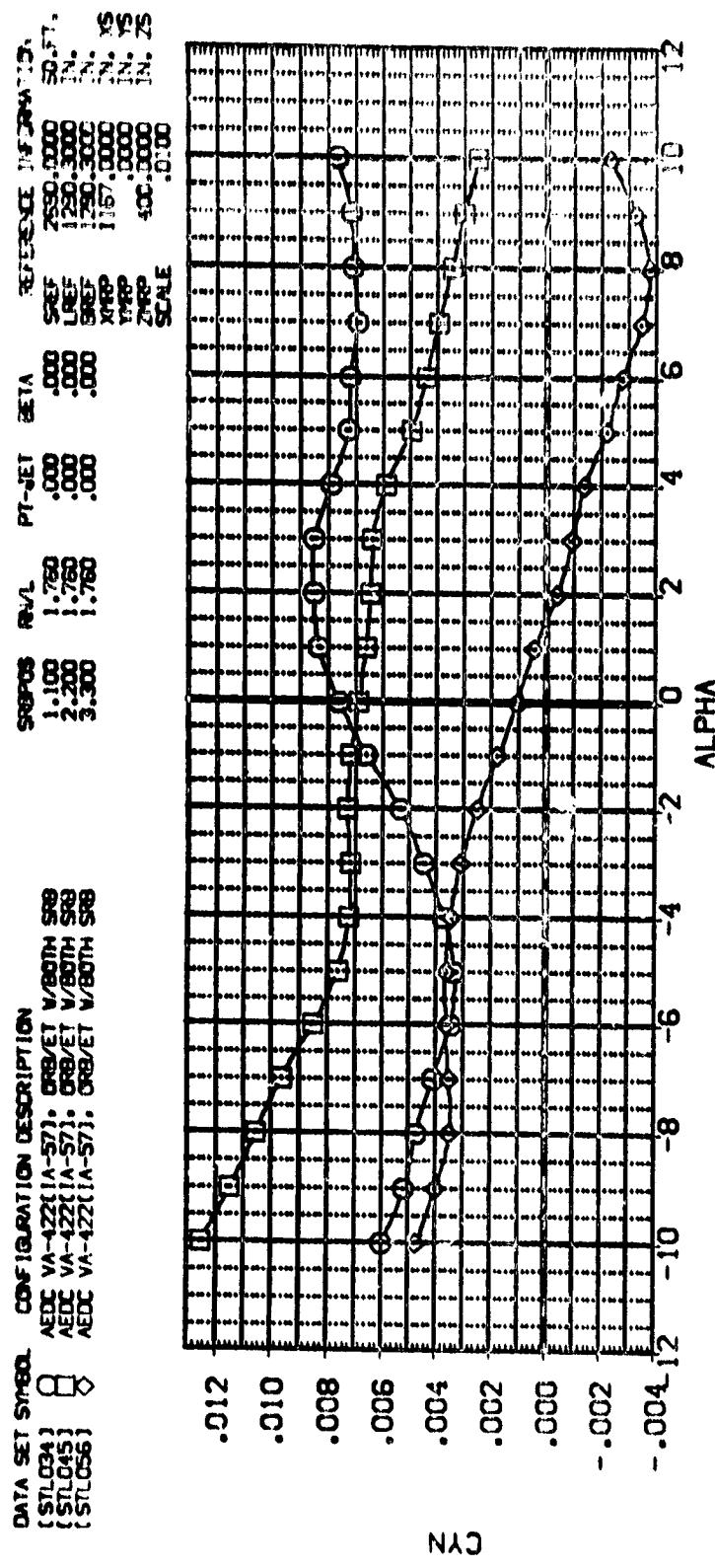
EFFECT OF SYMMETRICAL SRB W/0 PLUMES SEPARATION ON SRB CHRACT. (RN/L=1.76)

(A) MACH = 4.50

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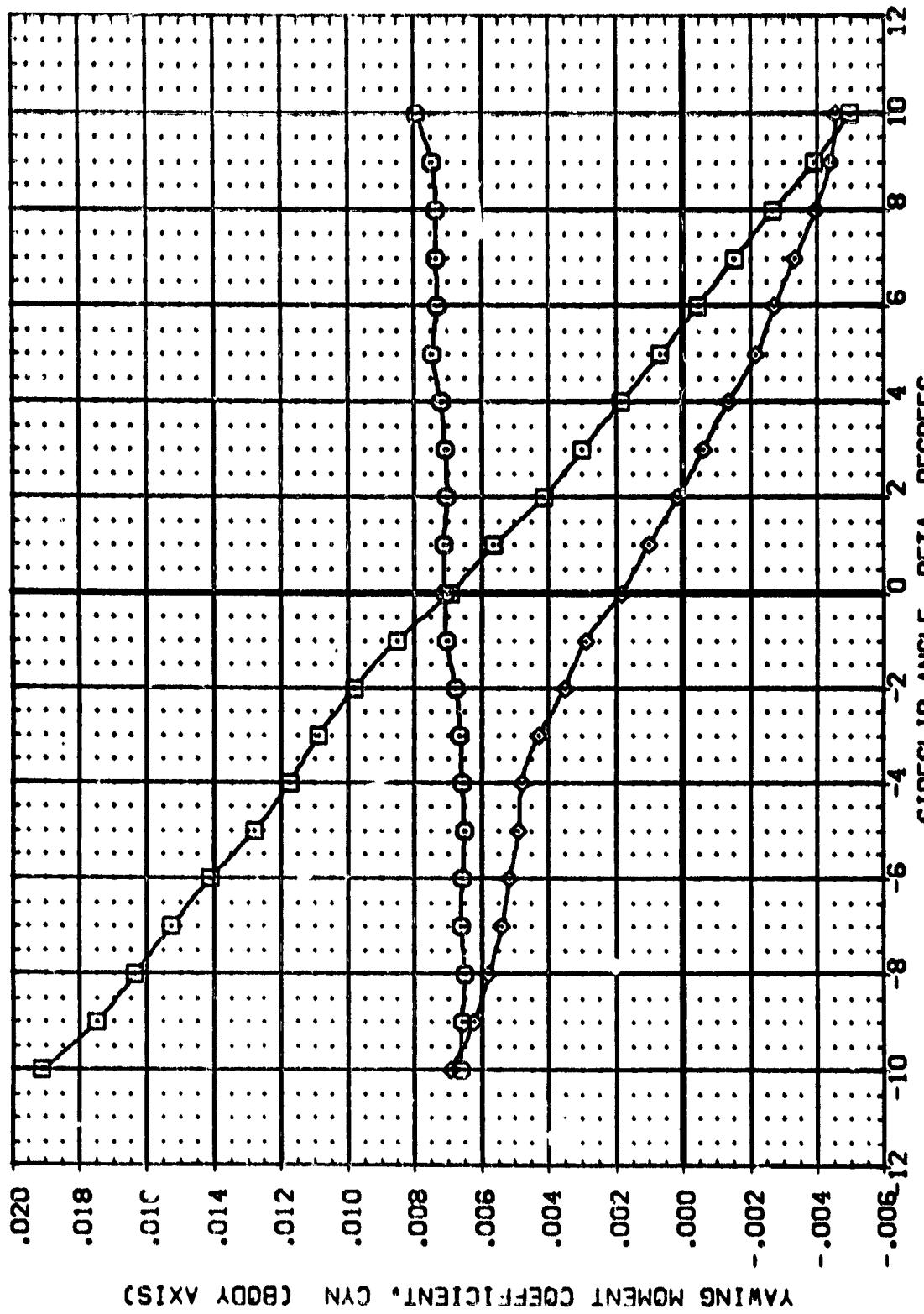
REPRODUCIBILITY OF THIS  
ORIGINAL PAGE IS POOR

DATA SET S7B. CONFIGURATION DESCRIPTION  
 (STL034) AEDC VA-422(IA-57). ORB/ET V/BOTH S6B  
 (STL045) AEDC VA-422(IA-57). ORB/ET V/BOTH S6B  
 (STL056) AEDC VA-422(IA-57). ORB/ET V/BOTH S6B



EFFECT OF SYMMETRICAL SRB W/0 PLUMES SEPARATION ON SRB CHARACT. (CRM/L=1.75)  
 $c_{\text{MACH}} = 4.50$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 STL035 AEDC VA-422 (IA-57) ORB/ET V/BOTH SRB  
 STL045 AEDC VA-422 (IA-57) ORB/ET V/BOTH SR3  
 STL057 AEDC VA-422 (IA-57) ORB/ET V/BOTH SR3

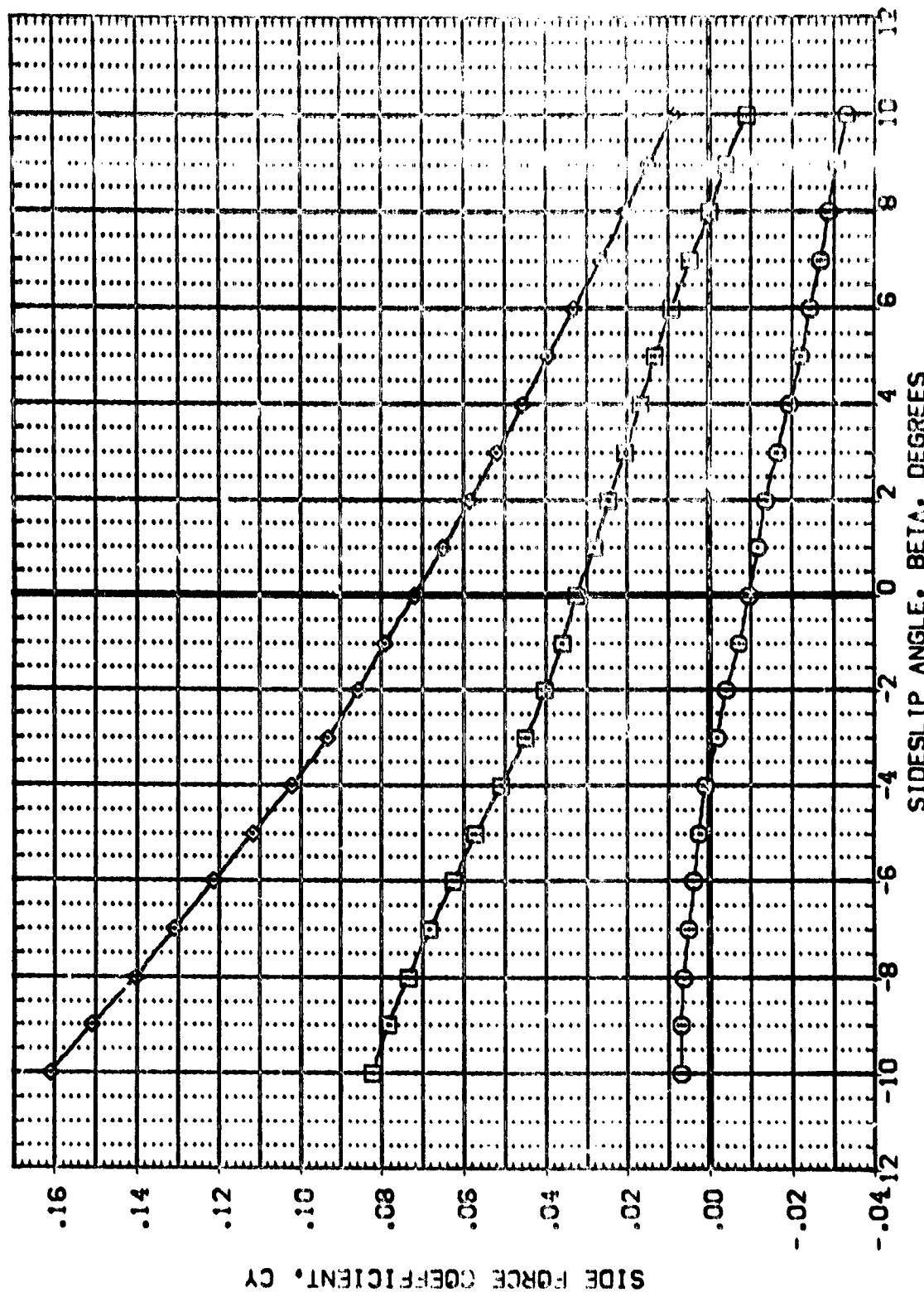


EFFECT OF SYMMETRICAL SRB W/0 PLUMES SEPARATION ON SRB CHRACT. (RN/L=1.76)

(AJMACH = 4.50)

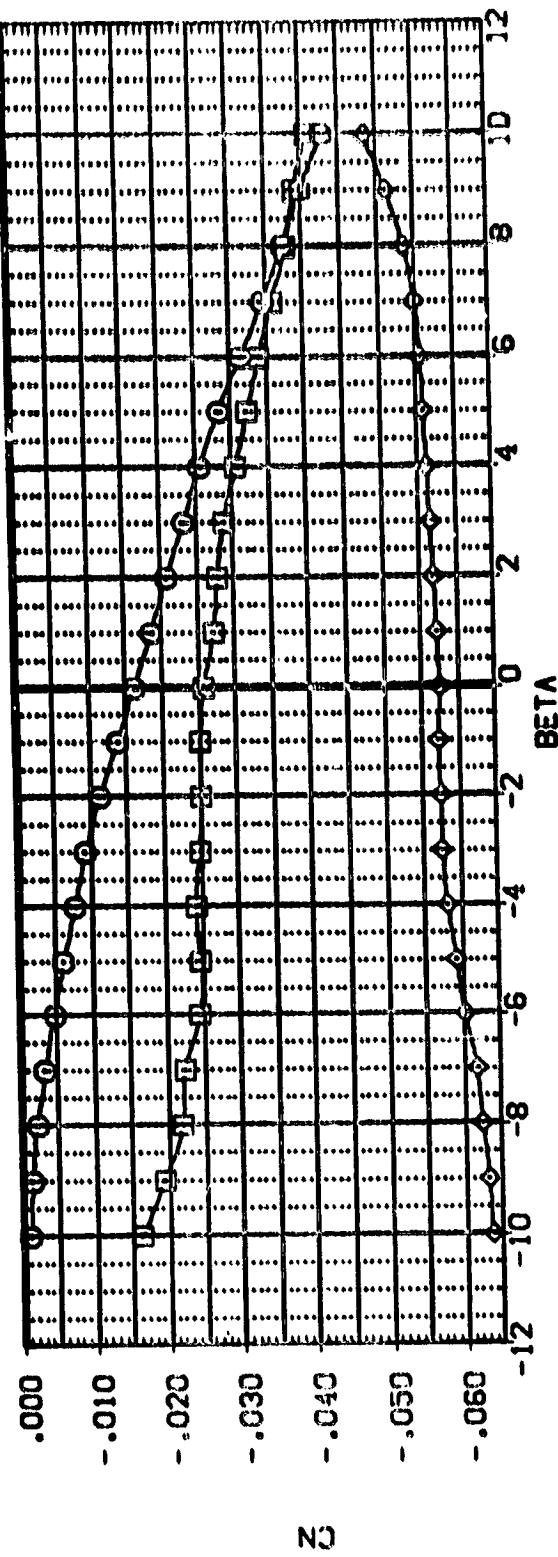
DATA SET NAME	CONFIGURATION DESCRIPTION
DISP5	ADCC WA-222(VA-571)
DISP6	ADCC WA-222(VA-571)
DISP7	ADCC WA-222(VA-571)
DISP8	ADCC WA-222(VA-571)

STEPS	RVL	PT-JET	ALPHA	REFINE OF INITIATION	ST.
1	1.100	1.780	.000	000	000
2	2.200	1.780	.000	000	000
3	3.300	1.780	.000	000	000

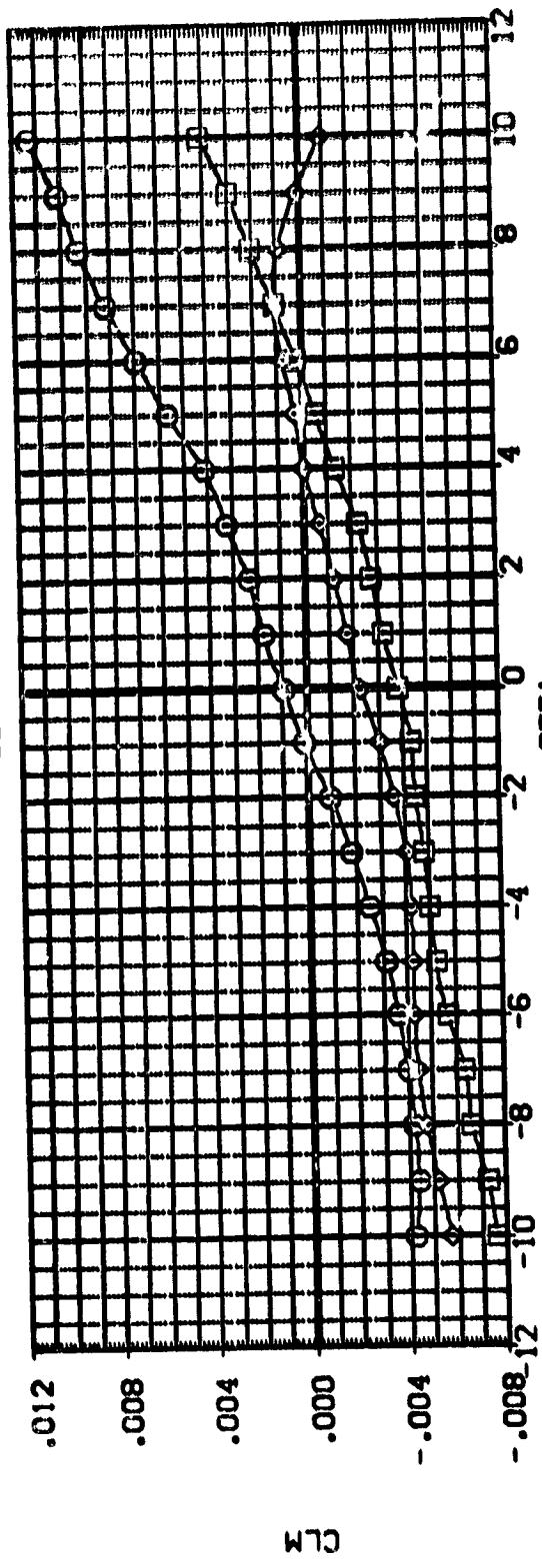


## EFFECT OF SYMMETRICAL SRB W/O PLUMES SEPARATION ON SRB CHARACT. (PNU = 1.76)

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (S1005) AEDC VA-422/IA-571. GRB/ET VABOTH 988  
 (S1005) AEDC VA-422/IA-571. GRB/ET VABOTH 988  
 (S1005) AEDC VA-422/IA-571. GRB/ET VABOTH 988



REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

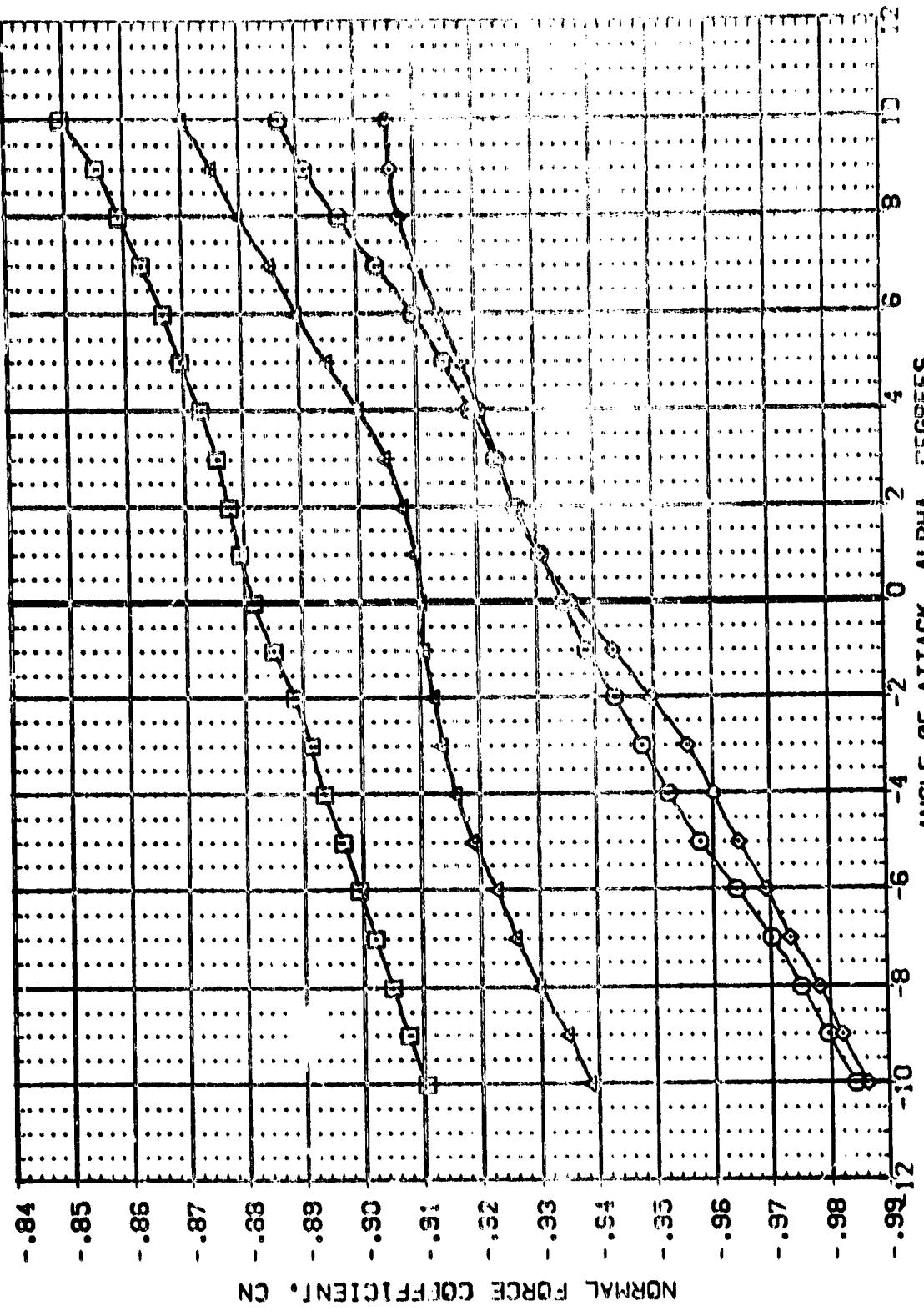


EFFECT OF SYMMETRICAL SRB W/O PLUMES SEPARATION ON SRB CHARACTER. (CRN/L=1.76)

(A) MACH = 4.50

DATA SET SYMBOL CONFIDENCE DESCRIPTION  
 (STL002) AEDC VA-422(A-57); GRS/ET V-80TH 900  
 (STL007) AEDC VA-422(A-57); GRS/ET V-80TH 900  
 (STL008) AEDC VA-422(A-57); GRS/ET V-80TH 900  
 (STL009) AEDC VA-422(A-57); GRS/ET V-80TH 900

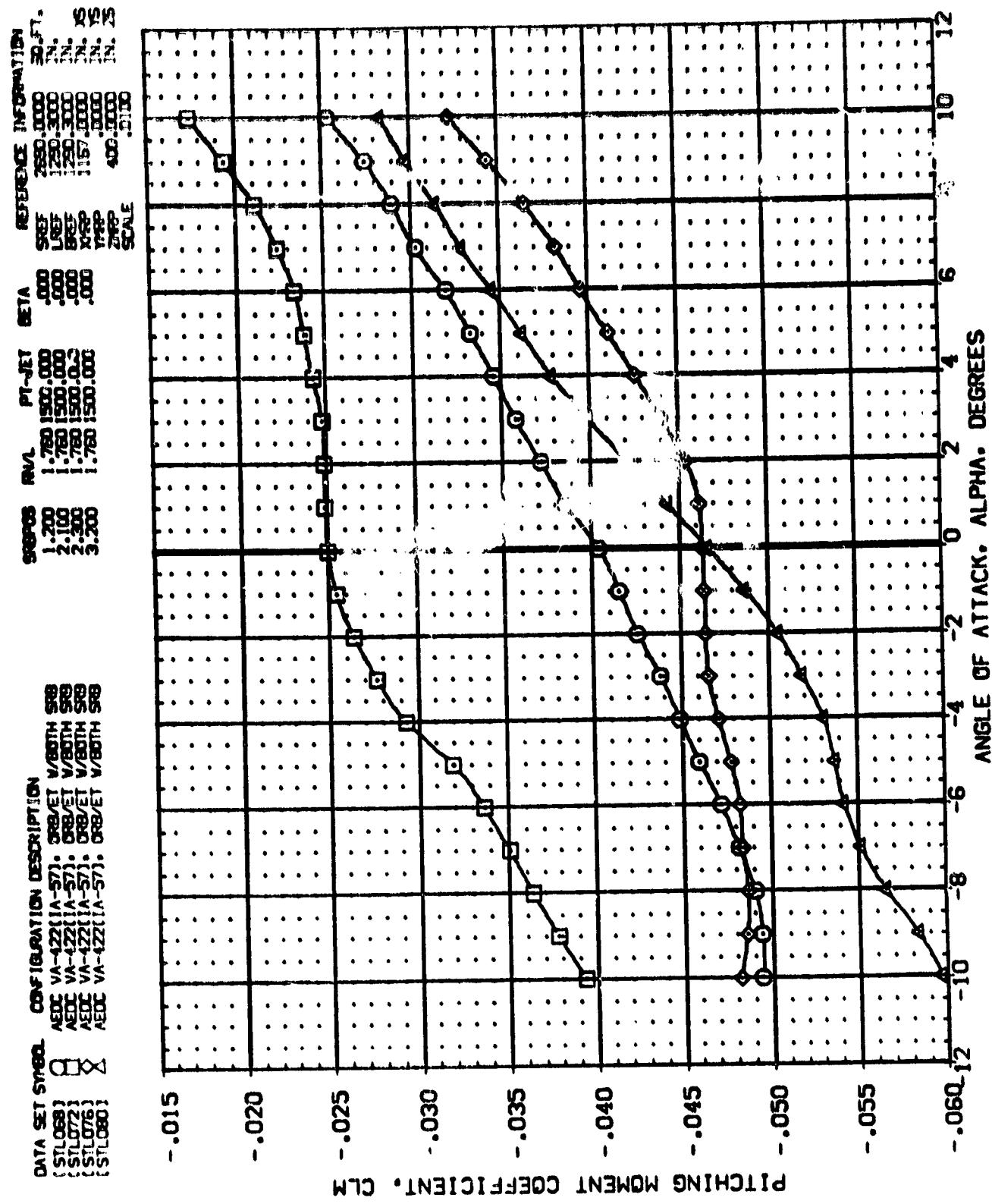
STL003 STL004 STL005 STL006 STL007 STL008 STL009  
 1.000 1.000 1.000 1.000 1.000 1.000 1.000  
 .990 1.000 1.000 1.000 1.000 1.000 1.000  
 .980 1.000 1.000 1.000 1.000 1.000 1.000  
 .970 1.000 1.000 1.000 1.000 1.000 1.000  
 .960 1.000 1.000 1.000 1.000 1.000 1.000  
 .950 1.000 1.000 1.000 1.000 1.000 1.000  
 .940 1.000 1.000 1.000 1.000 1.000 1.000  
 .930 1.000 1.000 1.000 1.000 1.000 1.000  
 .920 1.000 1.000 1.000 1.000 1.000 1.000  
 .910 1.000 1.000 1.000 1.000 1.000 1.000  
 .900 1.000 1.000 1.000 1.000 1.000 1.000  
 .890 1.000 1.000 1.000 1.000 1.000 1.000  
 .880 1.000 1.000 1.000 1.000 1.000 1.000  
 .870 1.000 1.000 1.000 1.000 1.000 1.000  
 .860 1.000 1.000 1.000 1.000 1.000 1.000  
 .850 1.000 1.000 1.000 1.000 1.000 1.000  
 .840 1.000 1.000 1.000 1.000 1.000 1.000  
 SCALE



EFFECT OF UNSYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS ( $C_D/V_L = 1.76$ )

( $A_{MACH} = 4.50$ )

PAGE 23B

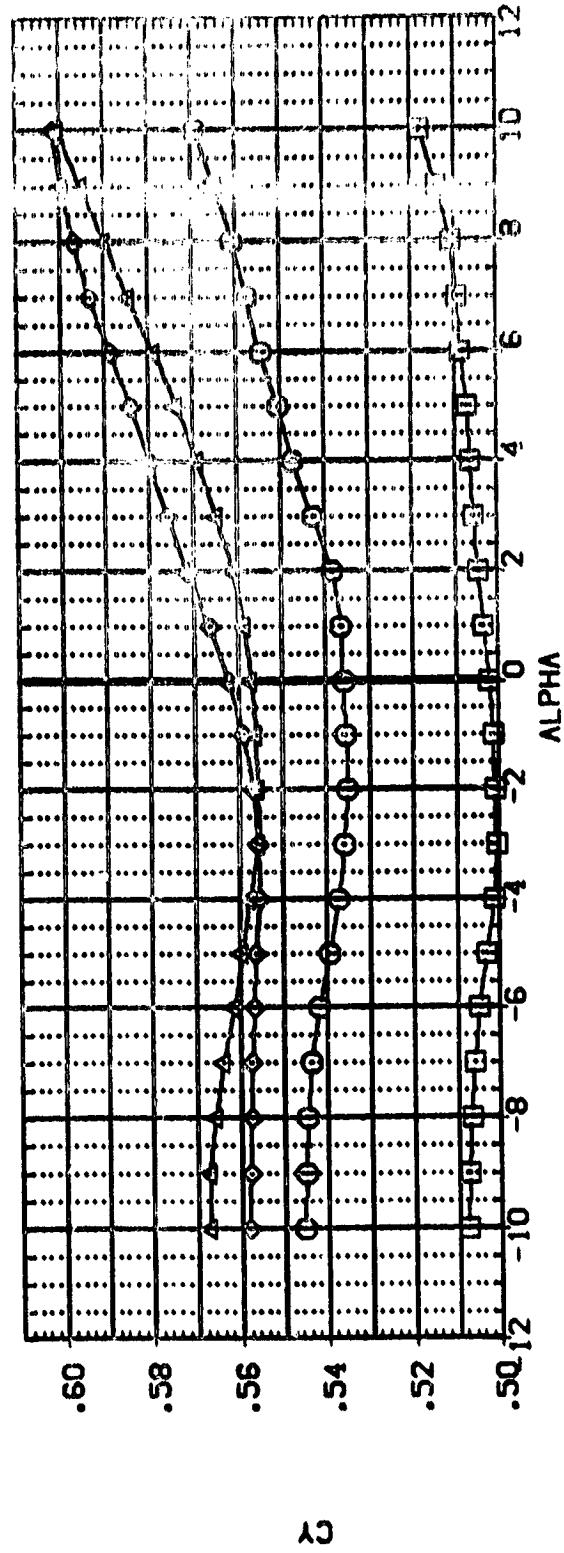
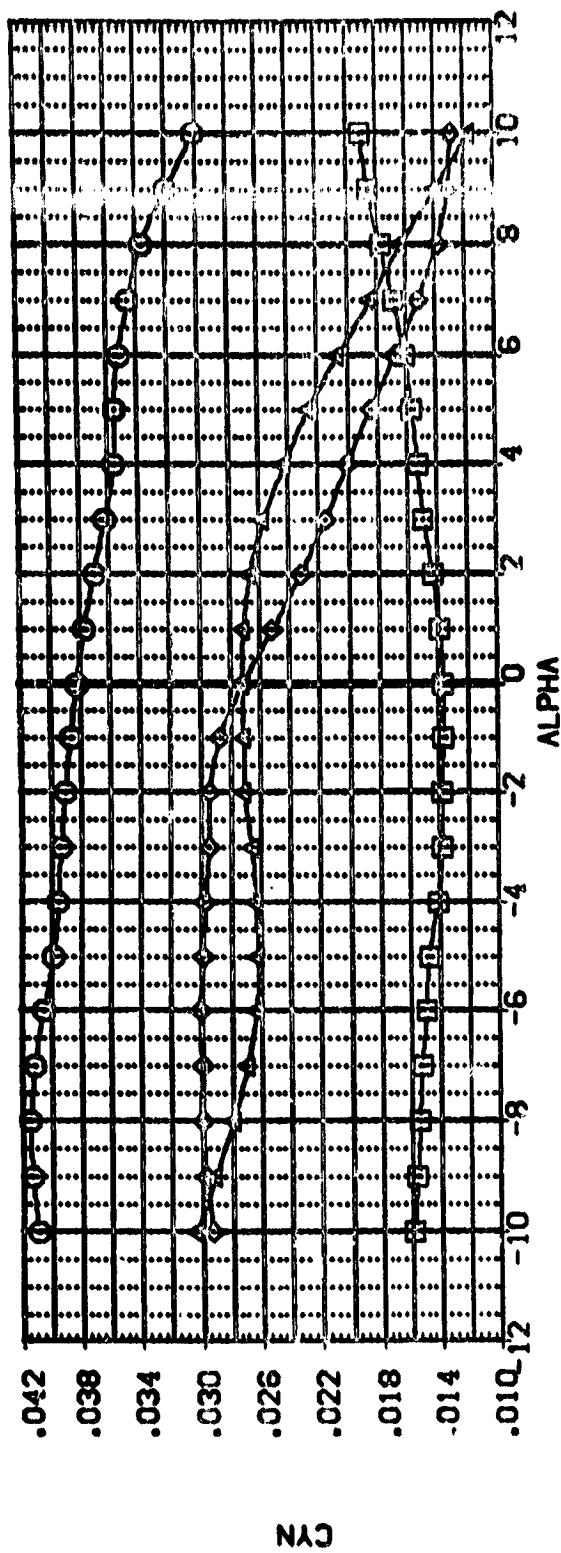


EFFECT OF UNSYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS

DIA SET SWAR.

BRIEF SURVEY

CONFIGURATION DESCRIPTION	VA-1221A-571	VA-1221B-571	VA-1221C-571	VA-1221D-571	VA-1221E-571
DET V BOTH	DET V BOTH	DET V BOTH	DET V BOTH	DET V BOTH	DET V BOTH
DET H BOTH	DET H BOTH	DET H BOTH	DET H BOTH	DET H BOTH	DET H BOTH
DET V RHT	DET V RHT	DET V RHT	DET V RHT	DET V RHT	DET V RHT
DET H RHT	DET H RHT	DET H RHT	DET H RHT	DET H RHT	DET H RHT
DET V LFT	DET V LFT	DET V LFT	DET V LFT	DET V LFT	DET V LFT
DET H LFT	DET H LFT	DET H LFT	DET H LFT	DET H LFT	DET H LFT

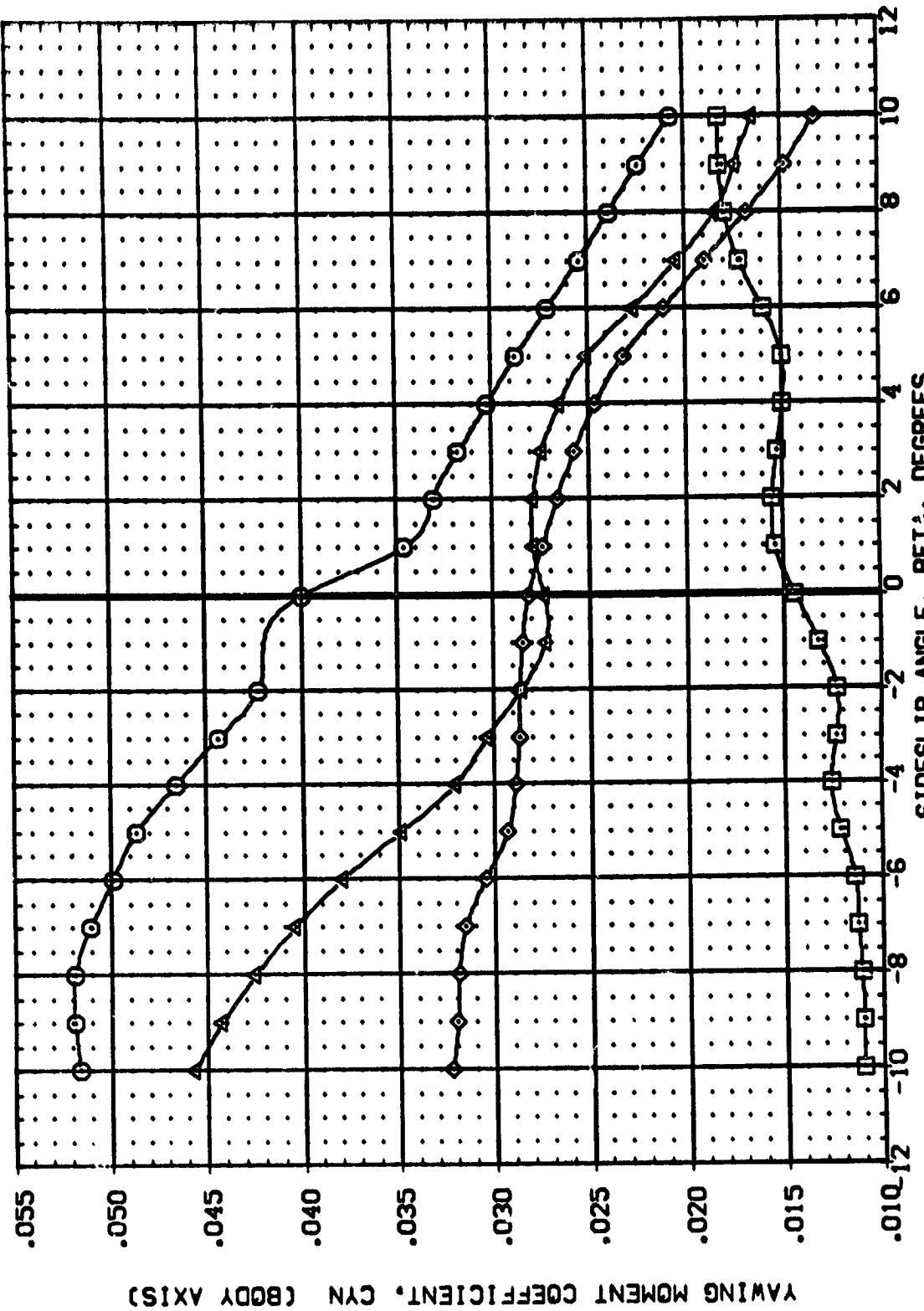


EFFECT OF UNSYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (INV. NO. 76)

$$[A]_{MACH} = 4.50$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 STL069 AEDC VA-422(IA-57) OB/E/ET V/BOTH SIS  
 STL073 AEDC VA-422(IA-57) OB/E/ET V/BOTH SIS  
 STL077 AEDC VA-422(IA-57) OB/E/ET V/BOTH SIS  
 STL081 AEDC VA-422(IA-57) OB/E/ET V/BOTH SIS

REFERENCE INFORMATION  
 SBF 2500, 3000 SQ.FT.  
 LREF 1250, 3000 IN.  
 BREF 1250, 3000 IN.  
 XRP 1167, 0000 IN.  
 YRP 1167, 0000 IN.  
 ZRP 400, 0000 IN.  
 SCALE .0100

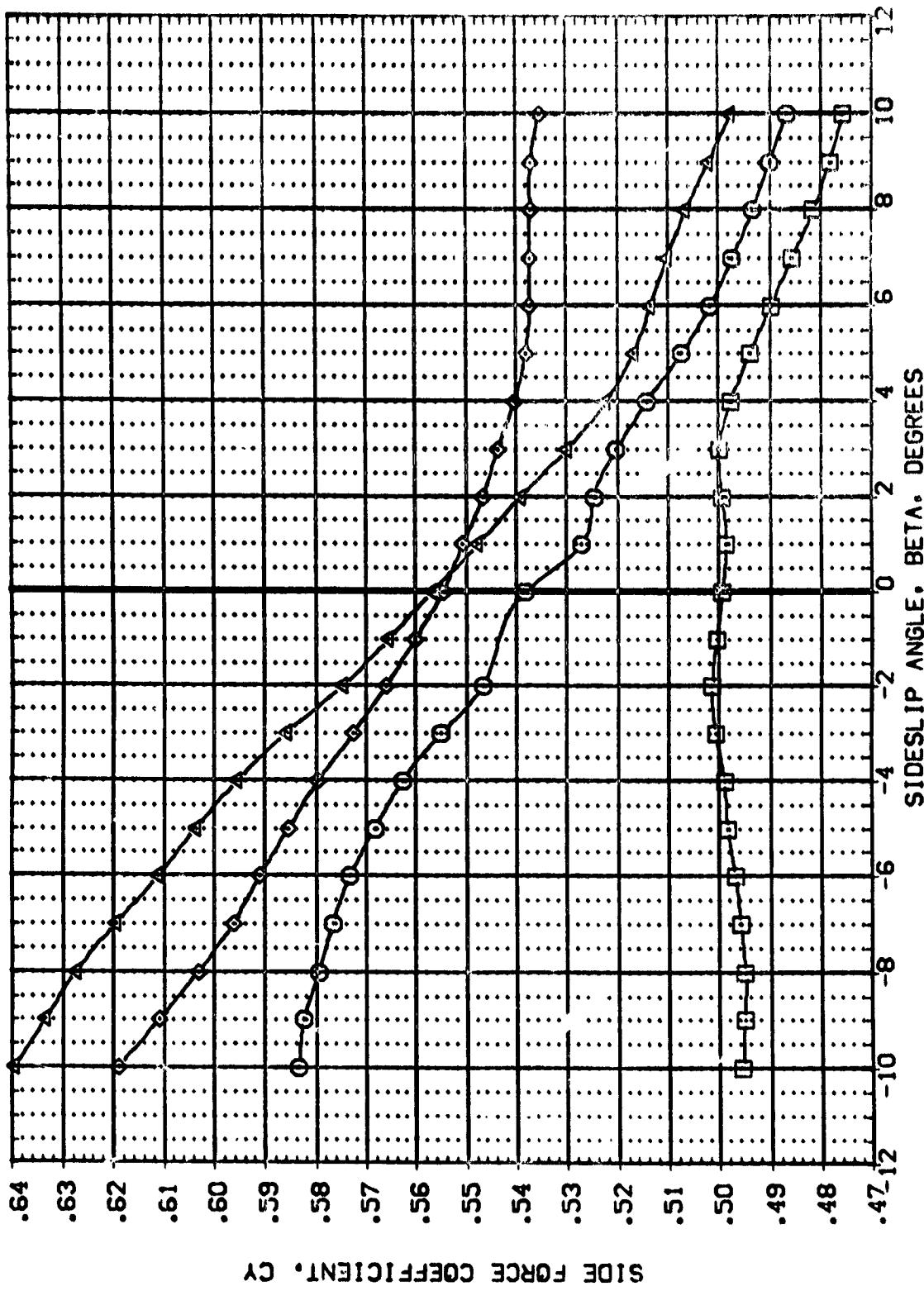


EFFECT OF UNSYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (RM/L=1.76)

( $\Delta$ MACH = 4.50)

## DATA SET SYMBOL CONFIGURATION DESCRIPTION

(STL02)	VA-422[IA-57], ORB/ET V/BOTH SRB
(STL073)	AEDC VA-422[IA-57], ORB/ET V/BOTH SRB
(STL077)	AEDC VA-422[IA-57], ORB/ET V/BOTH SRB
(STL081)	AEDC VA-422[IA-57], ORB/ET V/BOTH SRB



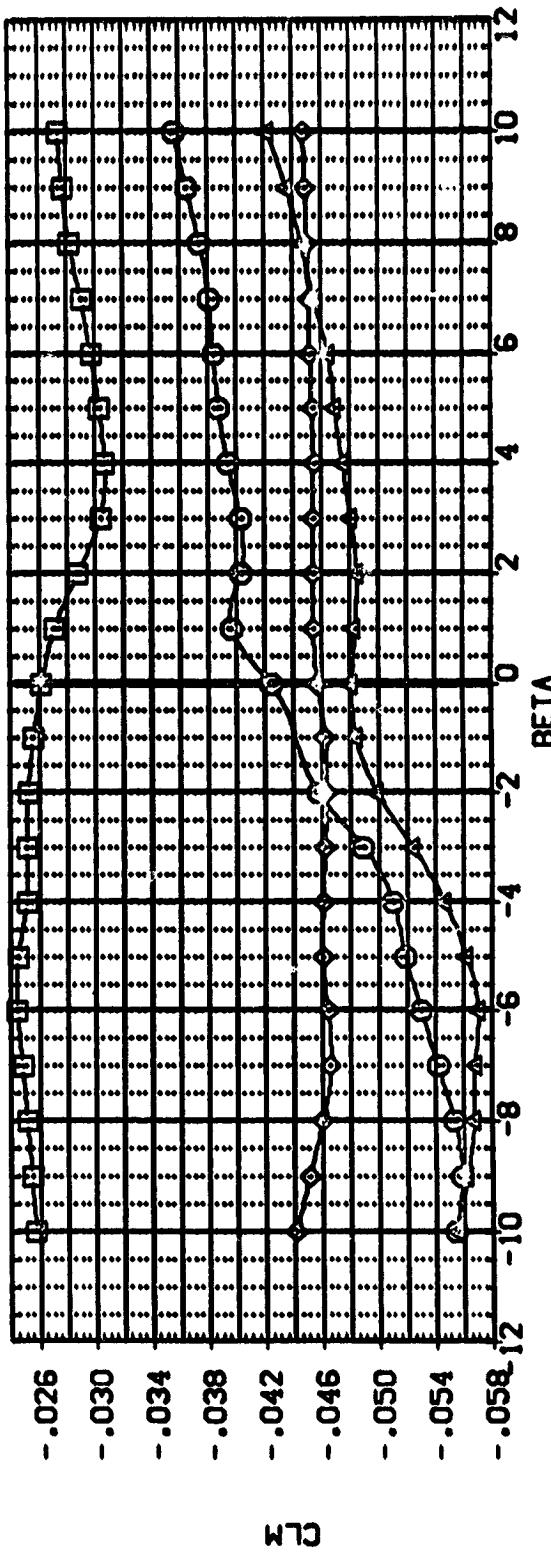
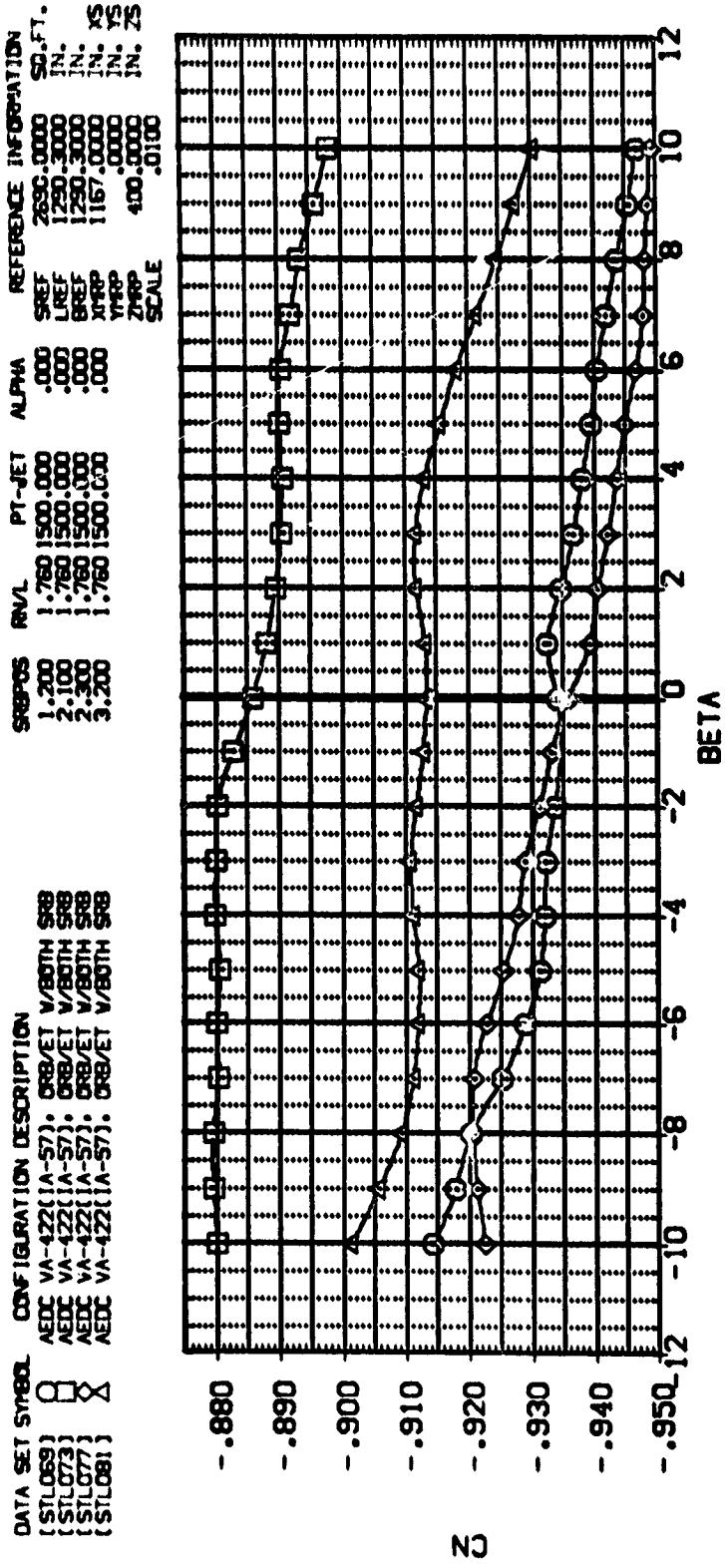
EFFECT OF UNSYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (CRN/L=1.76)

(A) MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

STL069	AEDC	VA-422 (A-571)	ORB/ET V/80TH SRB
STL073	AEDC	VA-422 (A-571)	ORB/ET V/80TH SRB
STL077	AEDC	VA-422 (A-571)	ORB/ET V/80TH SRB
STL081	AEDC	VA-422 (A-571)	ORB/ET V/80TH SRB



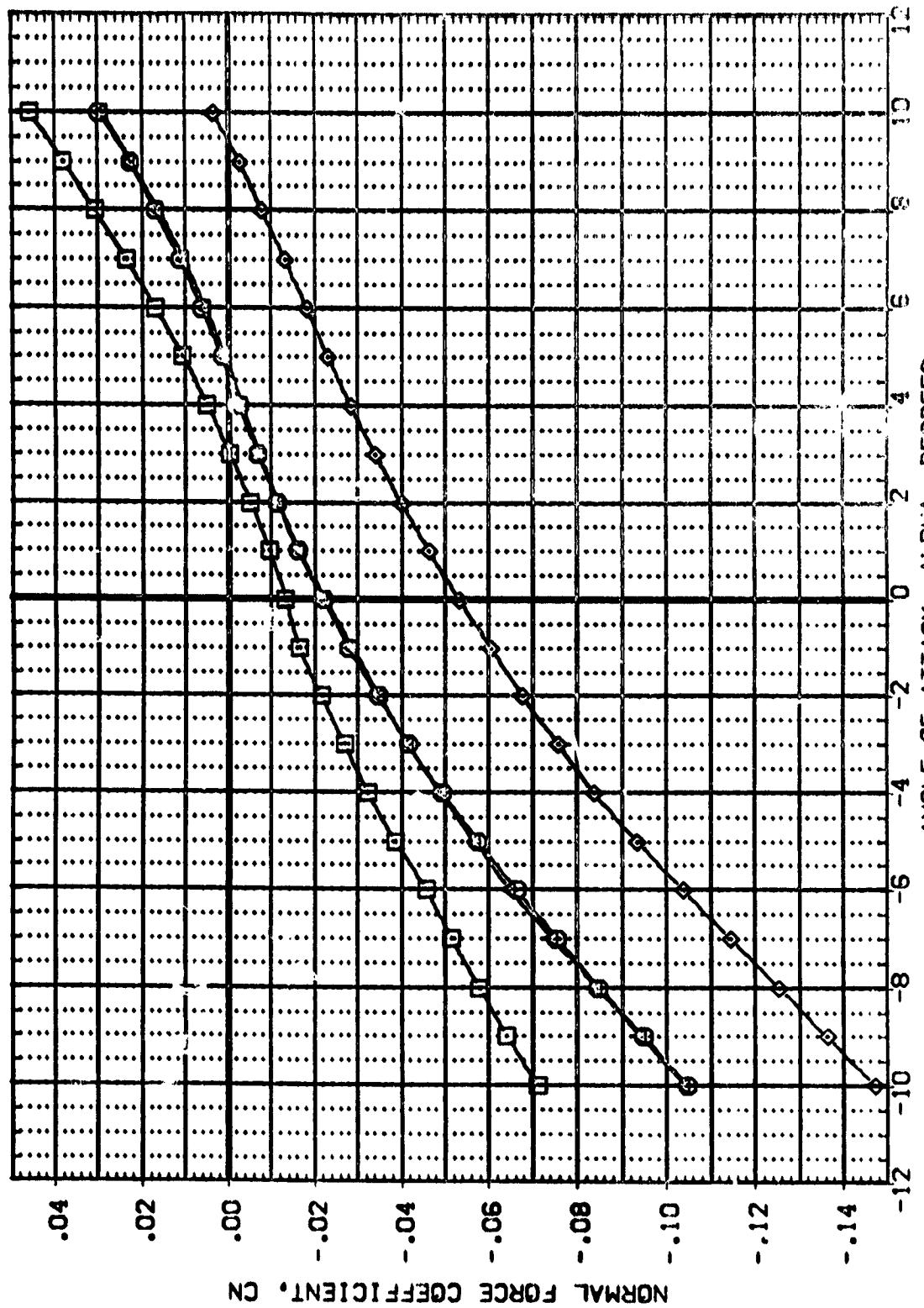
EFFECT OF UNSYMMETRICAL SRB SEPARATION ON SRB CHARACTERISTICS (RN/L=1.76)

(AJMACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[STL064]	AEDC	VA-422(A-57); OBSET V/BOTH SRB
[STL070]	AEDC	VA-422(A-57); OBSET V/BOTH SRB
[STL074]	AEDC	VA-422(A-57); OBSET V/BOTH SRB
[STL078]	AEDC	VA-422(A-57); OBSET V/BOTH SRB

REFERENCE INFORMATION  
 SPEEDS M/L PT-JET BETA  
 1.200 .750 .000 SREF 2690.0000 50 FT.  
 2.000 .750 .000 LREF 1250.3000 IN.  
 2.300 .750 .000 BREF 1250.3000 IN.  
 3.200 .750 .000 XRP 1167.0000 IN.  
 ZRP 400.0000 IN.  
 SCALE .0100

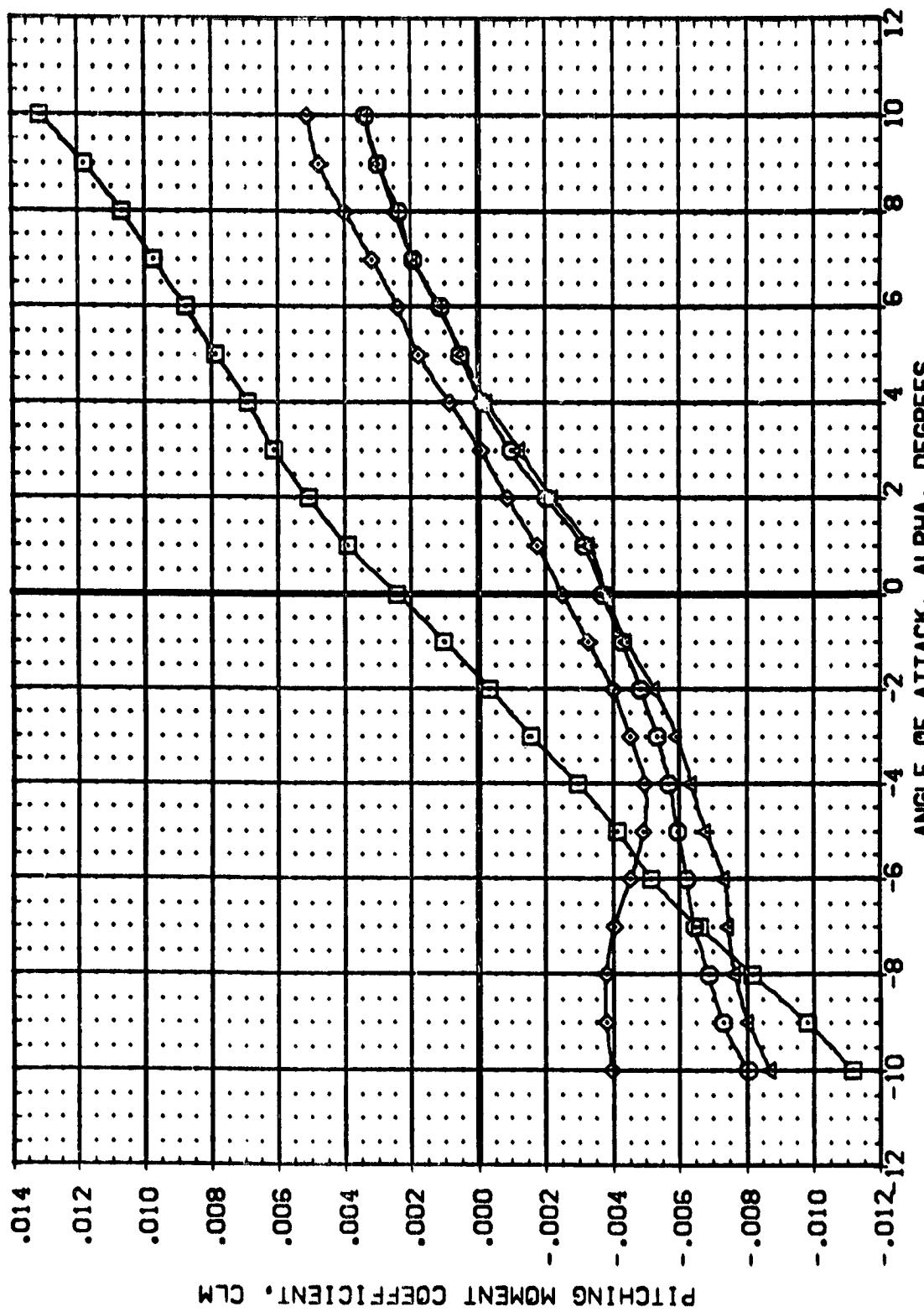


EFFECT OF UNSYMMETRICAL SRB W/O PLUMES SEPARATION ON SRB SEPARATION

CRITICAL MACH = 4.50

DATE: 10/17/87  
PAGE: 1

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL064] AEDC VA-422 (A-57) ORBIT V/BOTH SRB  
 [STL070] AEDC VA-422 (A-57) ORB/ET V/BOTH SRB  
 [STL074] AEDC VA-422 (A-57) ORB/ET V/BOTH SRB  
 [STL078] AEDC VA-422 (A-57) ORB/ET V/BOTH SRB



EFFECT OF UNSYMMETRICAL SRB W/O PLUMES SEPARATION ON SRB CHRACT. (RN/L=6.75)

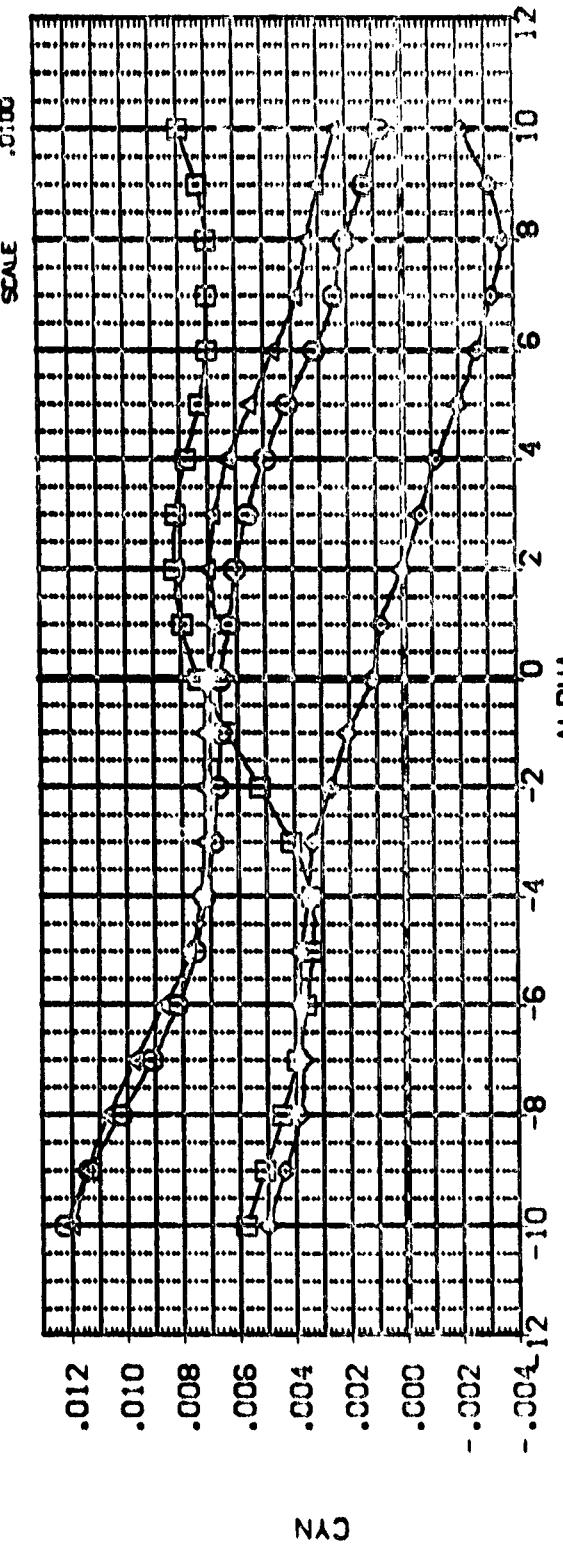
(A)MACH = 4.50

PAGE 245

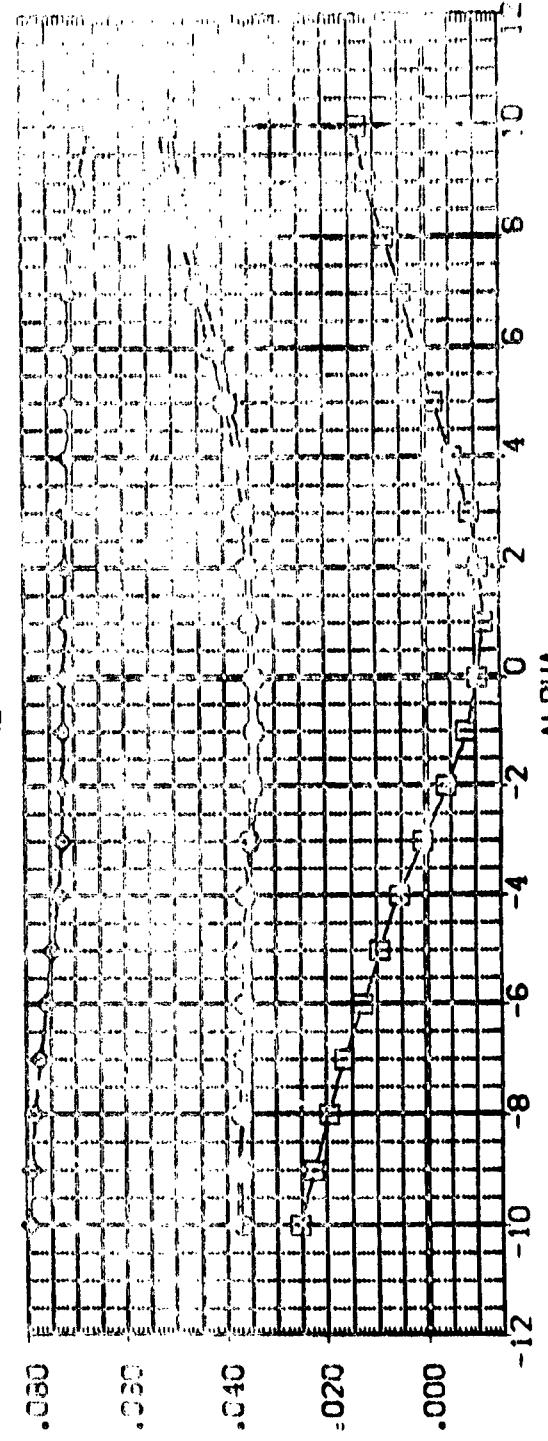
## DATA SET SYMBOL CONFIGURATION DESCRIPTION

SET SYMBOL	AEDC VA-422(A-57)	ORBIT V BOTH SRB
ST-064		
ST-070		
ST-074		
ST-078		

REF 2690,0000  
LREF 1250,3000  
SREF 1250,3000  
IN. 167,0000  
IN. 167,0000  
IN. 400,0000  
IN. 25  
SCALE .0100



CYN



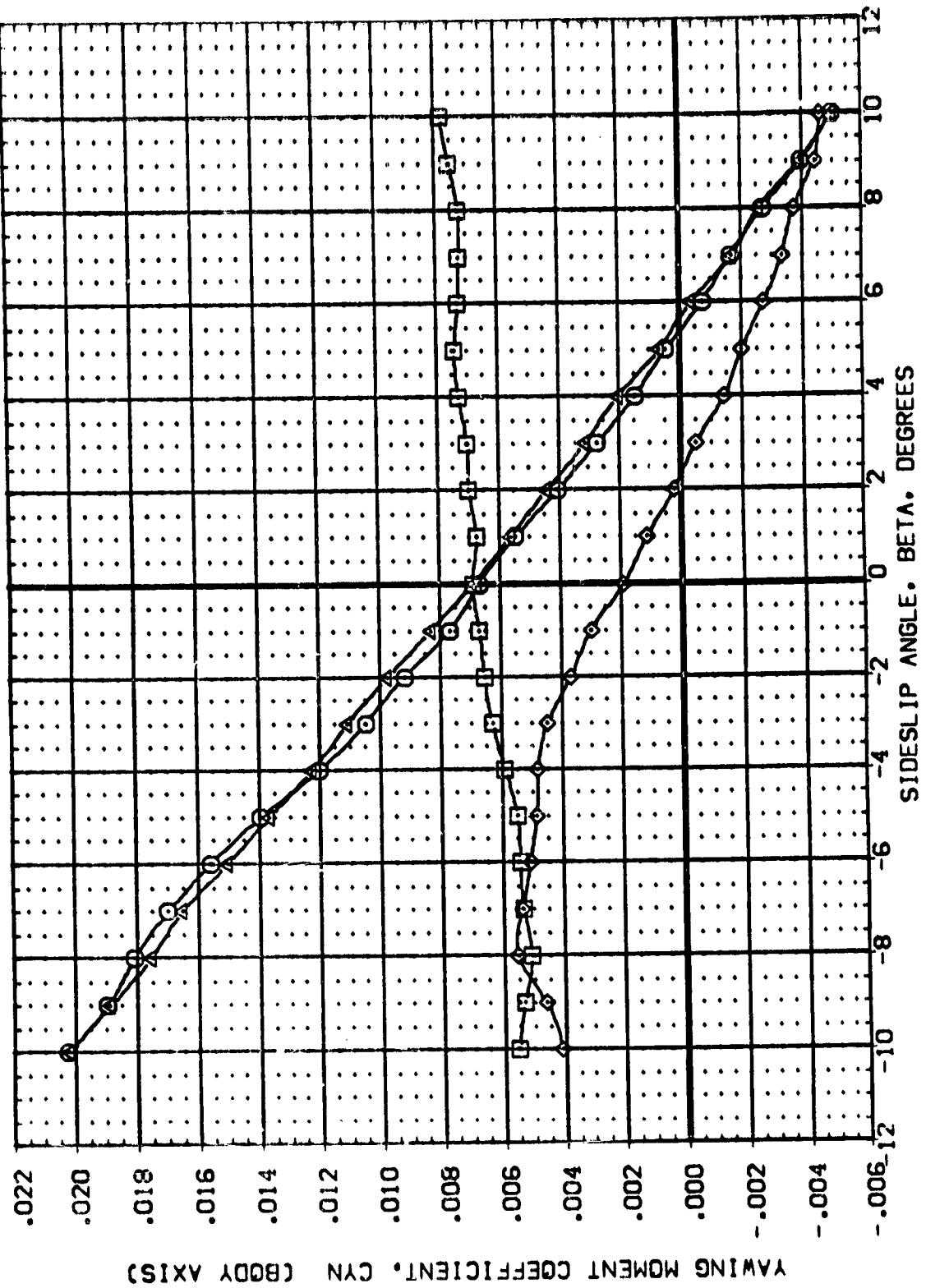
CY

EFFECT OF UNSYMMETRICAL SRB W/0 PLUMES SEPARATION ON SRB CHAPT.  $C_{A,MACH} = 4.50$   
 $C_{A,MACH} = 5.75$   
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DATA SET SYMBOL CONFIGURATION DESCRIPTION

[STL065]	○	ORB/ET V/BOTH SRB
[STL071]	□	ORB/ET V/BOTH SRB
[STL075]	△	ORB/ET V/BOTH SRB
[STL079]	×	ORB/ET V/BOTH SRB

SEPARUS RAVL PT-JET ALPHA REFERENCE INSPIRATION  
 1.200 1.750 .000 SREF 2690.000 SQ.FT.  
 2.100 1.750 .000 LREF 1250.300 IN.  
 2.300 1.750 .000 BREF 1250.300 IN.  
 3.200 1.750 .000 XJRP 1167.000 IN. 15  
 .000 .000 YJRP 400.000 IN. 15  
 .000 .000 ZJRP .010 IN. 15  
 SCALE

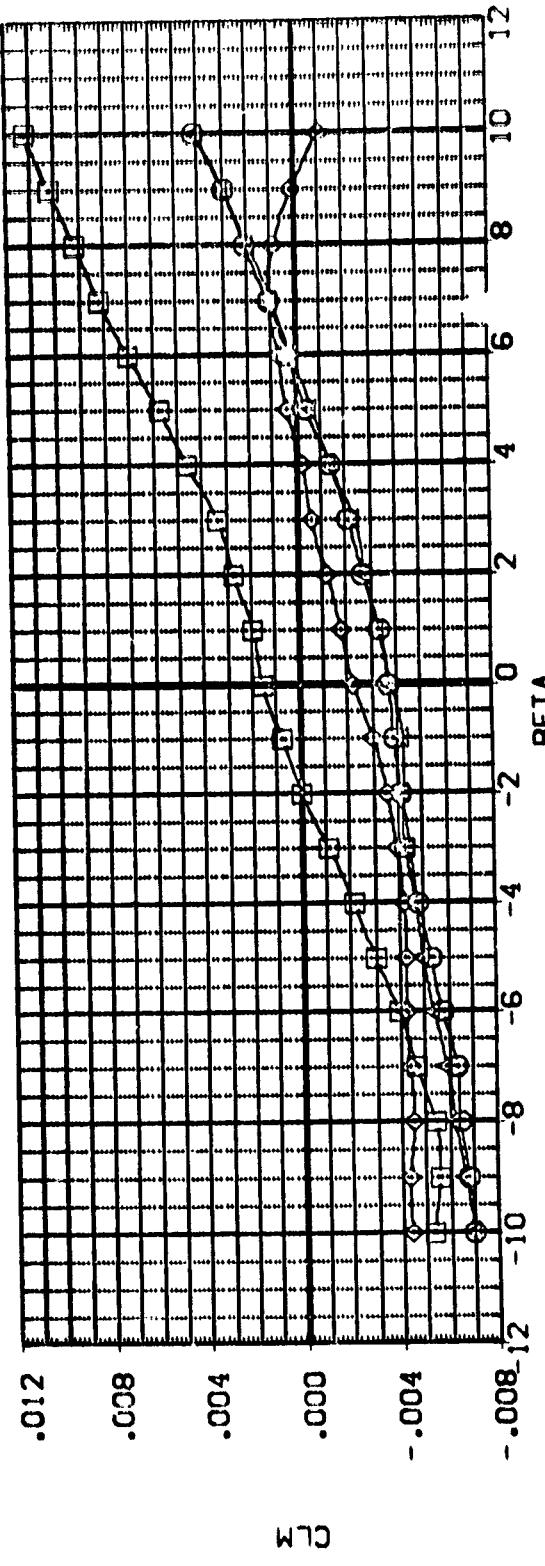
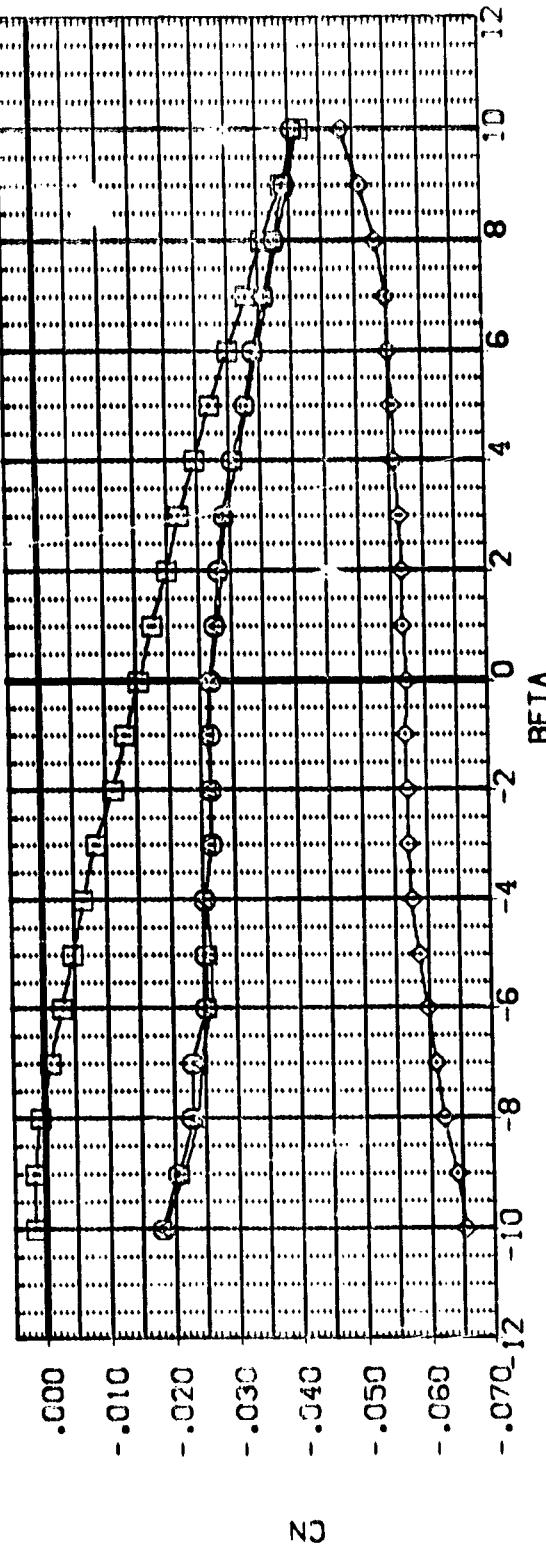


DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL065] A AEDC VA-422([A-57]) 058/ET V/BOTH SRB  
 [STL071] X AEDC VA-422([A-57]) 058/ET V/BOTH SRB  
 [STL075] O AEDC VA-422([A-57]) 058/ET V/BOTH SRB  
 [STL079] - AEDC VA-422([A-57]) 058/ET V/BOTH SRB

REFERENCE 15 DEGREES  
 STABILIZER  
 REFERENCE  
 1500 3000 5000  
 1250 3000 5000  
 1000 3000 5000  
 750 3000 5000  
 500 3000 5000  
 250 3000 5000  
 100 3000 5000  
 50 3000 5000  
 25 3000 5000  
 10 3000 5000  
 5 3000 5000  
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DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (STL05)      O      AE/DC VA-422 [(A-57)] ORB/ET V/BOTH SRB  
 (STL05)      X      AE/DC VA-422 [(A-57)] ORB/ET V/BOTH SRB  
 (STL05)      D      AE/DC VA-422 [(A-57)] ORB/ET V/BOTH SRB  
 (STL05)      L      AE/DC VA-422 [(A-57)] ORB/ET V/BOTH SRB

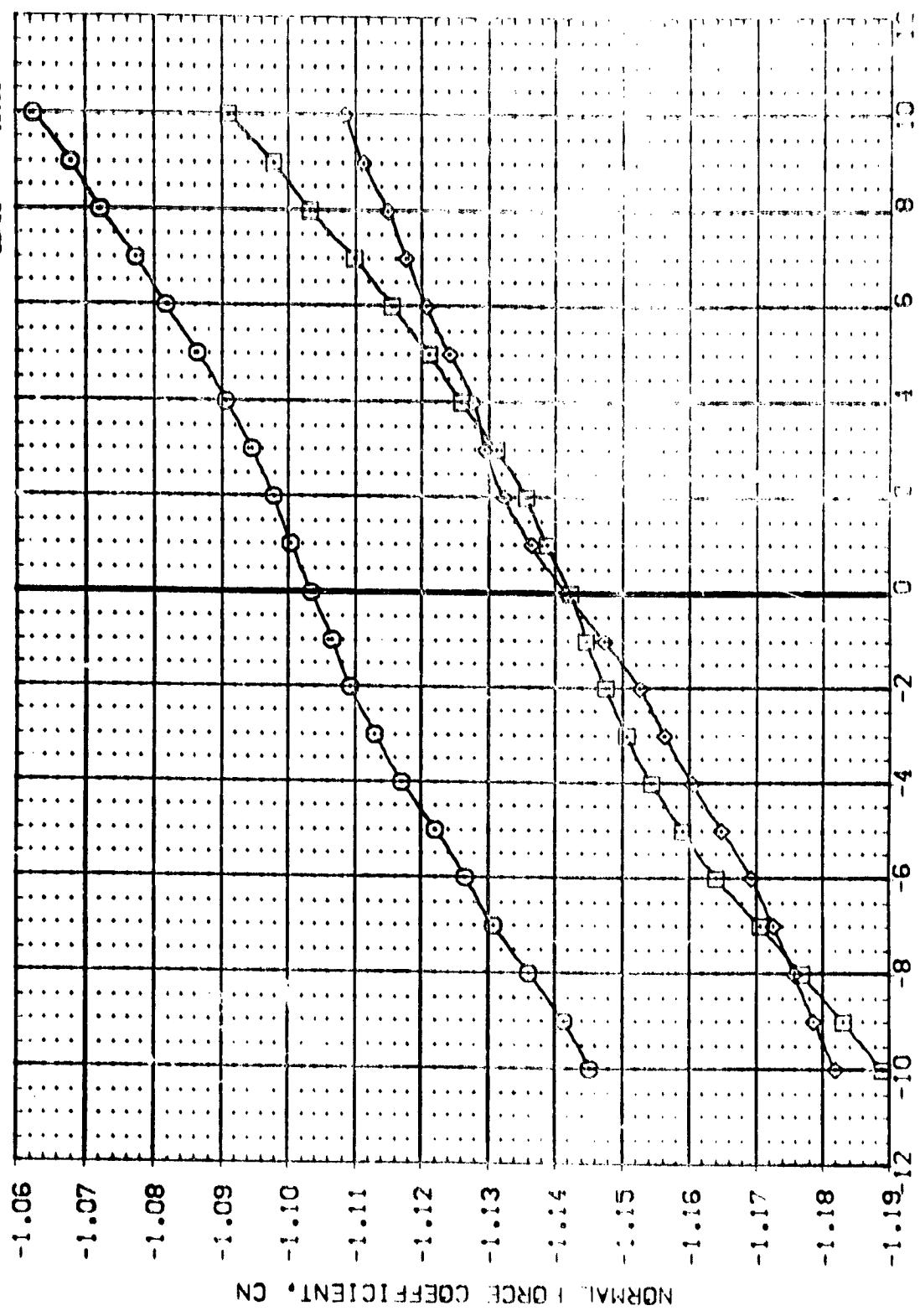
STEPDOS      RNL      PI-JET      ALPHA      REFERENCE INFORMATION  
 1.200      .000      .000      2690 3000 S=1  
 2.100      .000      .000      2690 3000 S=1  
 2.300      .000      .000      2690 3000 S=1  
 3.200      .000      .000      2690 3000 S=1  
 4.000      .000      .000      2690 3000 S=1  
 4.800      .000      .000      2690 3000 S=1  
 5.600      .000      .000      2690 3000 S=1  
 6.400      .000      .000      2690 3000 S=1  
 7.200      .000      .000      2690 3000 S=1  
 8.000      .000      .000      2690 3000 S=1  
 8.800      .000      .000      2690 3000 S=1  
 9.600      .000      .000      2690 3000 S=1  
 10.400      .000      .000      2690 3000 S=1  
 11.200      .000      .000      2690 3000 S=1  
 12.000      .000      .000      2690 3000 S=1  
 SCALE



EFFECT OF UNSYMMETRICAL SRB W/0 PLUMES SEPARATION ON SRB CHARACT. (RN/L=6.75)  
 CA2MACH -  $\frac{1}{4}$ .50  
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DATA SET SRB01  
 CONFIGURATION DESCRIPTION  
 [S1-C007] O AEDC VA-422(LA-571). ORB/ET V/RIGHT SRB  
 [S1-C15] O AEDC VA-422(LA-571). ORB/ET V/RIGHT SRB  
 [S1-C23] O AEDC VA-422(LA-571). ORB/ET V/RIGHT SRB

SRBPOS	REV/L	PT-JET	BETA	REFERENCE
.100	1.420	1500.000	.000	REF
.200	1.400	1500.000	.000	REF
.300	1.400	1500.000	.000	REF
				YREF
				XREF
				ZREF
				400.0000
				200.0000
				100.0000
				50.0000
				25.0000
				12.5000
				6.2500
				3.1250
				1.5625
				.7812
				.3906
				.1953
				.0977
				.0488
				.0244
				.0122
				.0061
				.0030
				.0015
				.0007
				.0003
				.0001
				.0000



EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACTERISTICS  $\alpha_{SEPARATION} = 1.45^\circ$

COEFFICIENT

ANGLE

OF ATTACK. ALPHAS. DEGREES

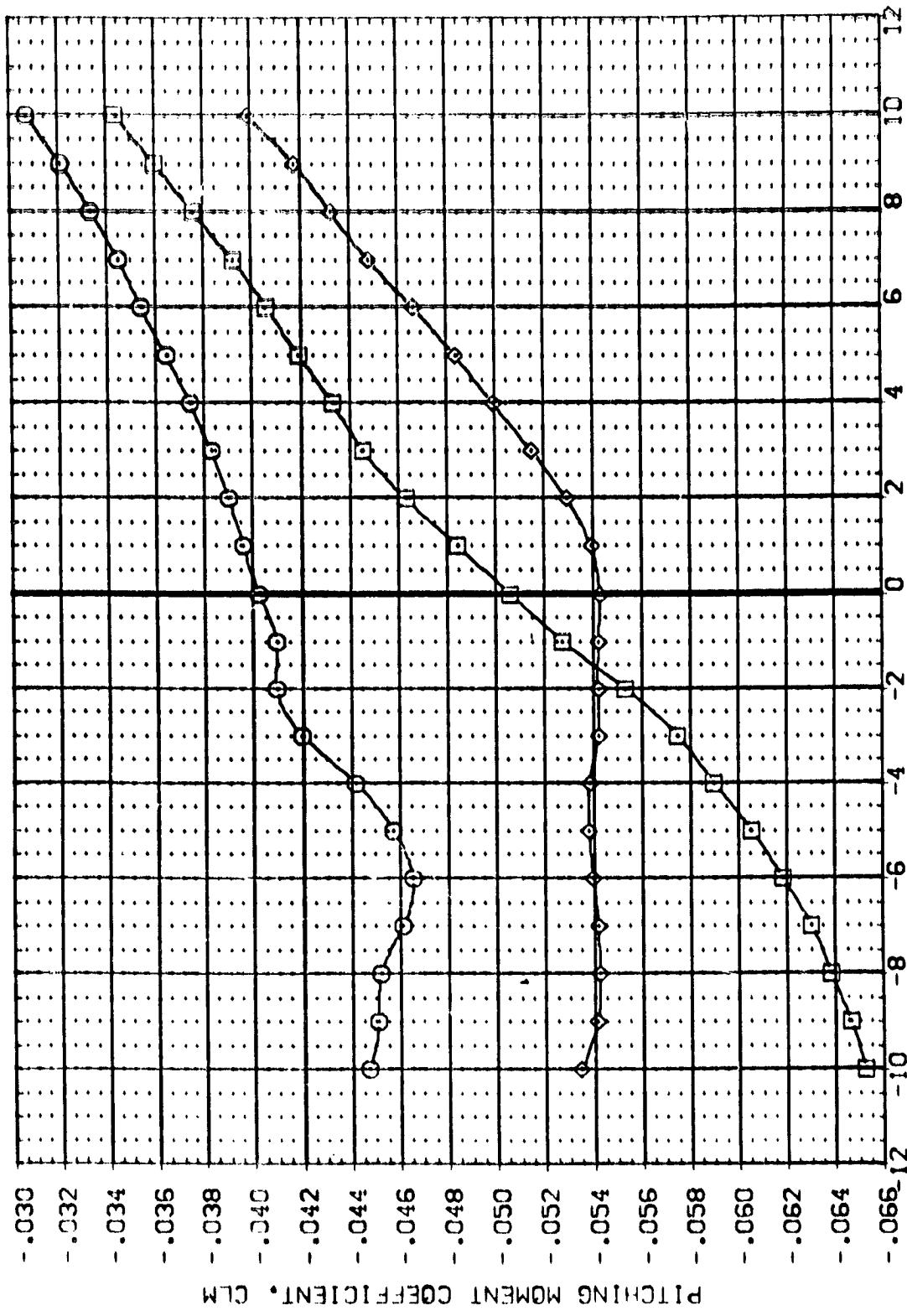
DATA SET

SRB01



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (S-001) AEDC VA-422(1A-57), ORB/ET WRIGHT SRB  
 (S-015) AEDC VA-422(1A-57), ORB/ET WRIGHT SRB  
 (S-373) AEDC VA-422(1A-57), ORB/ET WRIGHT SRB

SEPAROS	RNL	PR-JET	BETA	REFERENCE SEPARATION
.100	1.400	1500	.000	5000
.200	1.400	1500	.000	3000
.300	1.400	1500	.000	2000
.400	1.400	1500	.000	1500
.500	1.400	1500	.000	1000
.600	1.400	1500	.000	700
.700	1.400	1500	.000	500
.800	1.400	1500	.000	400
.900	1.400	1500	.000	300
1.000	1.400	1500	.000	200



EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACTERISTICS (RN/L=1.4)

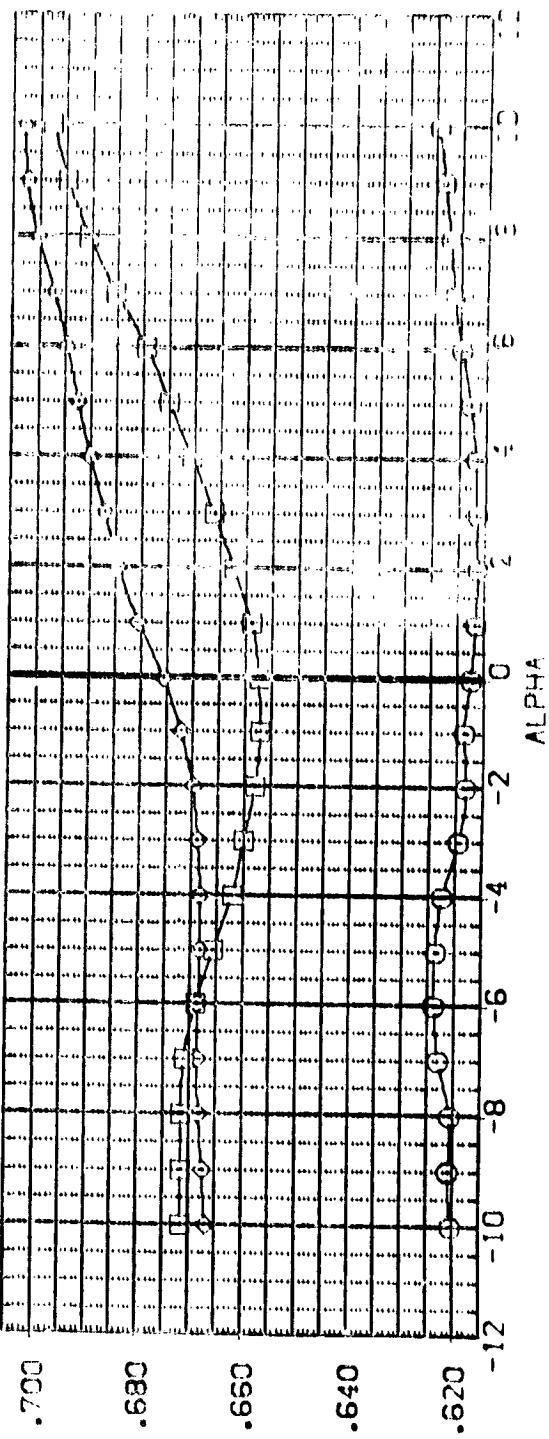
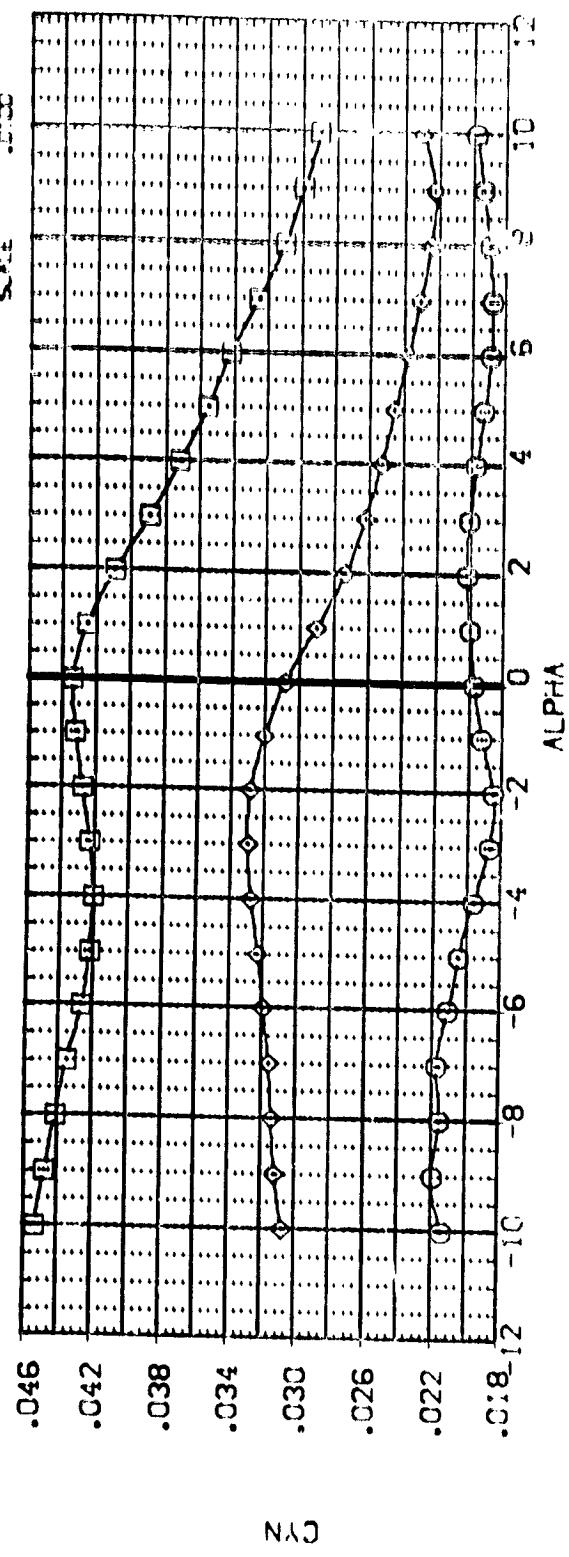
CASE NO. 4.50

PAGE 25

PAGE 25

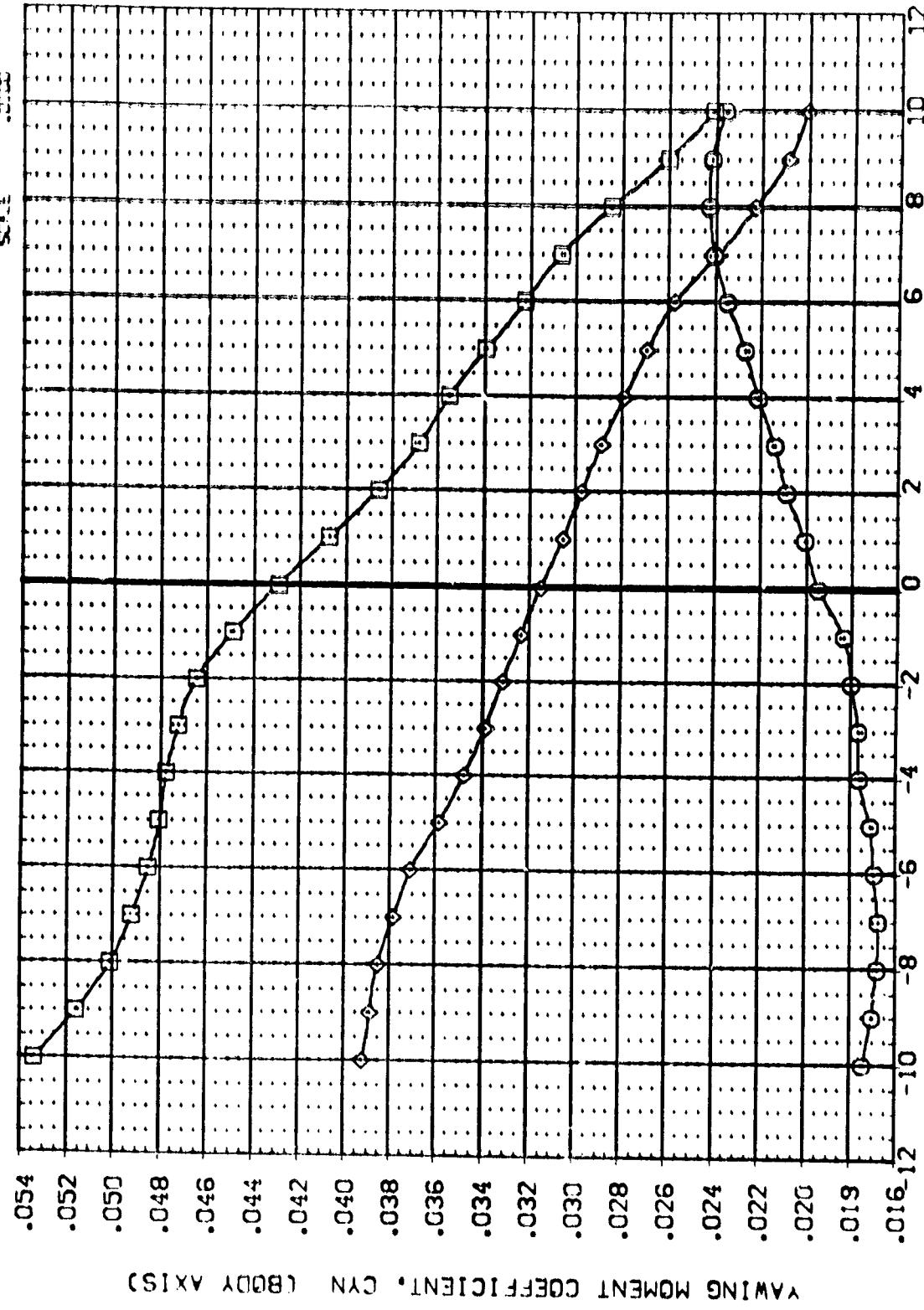
DATA SET	SYM-3D	CONFIGURATION	DESCRIPTION
S-LC01	A	AE/DC	VA-4221 [LA-571]
S-LC02	B	AE/DC	VA-4221 [LA-571]
S-LC03	C	AE/DC	VA-4221 [LA-571]
S-LC04	D	AE/DC	VA-4221 [LA-571]
S-LC05	E	AE/DC	VA-4221 [LA-571]
S-LC06	F	AE/DC	VA-4221 [LA-571]
S-LC07	G	AE/DC	VA-4221 [LA-571]
S-LC08	H	AE/DC	VA-4221 [LA-571]
S-LC09	I	AE/DC	VA-4221 [LA-571]
S-LC10	J	AE/DC	VA-4221 [LA-571]
S-LC11	K	AE/DC	VA-4221 [LA-571]
S-LC12	L	AE/DC	VA-4221 [LA-571]
S-LC13	M	AE/DC	VA-4221 [LA-571]
S-LC14	N	AE/DC	VA-4221 [LA-571]
S-LC15	O	AE/DC	VA-4221 [LA-571]
S-LC16	P	AE/DC	VA-4221 [LA-571]
S-LC17	Q	AE/DC	VA-4221 [LA-571]
S-LC18	R	AE/DC	VA-4221 [LA-571]
S-LC19	S	AE/DC	VA-4221 [LA-571]
S-LC20	T	AE/DC	VA-4221 [LA-571]
S-LC21	U	AE/DC	VA-4221 [LA-571]
S-LC22	V	AE/DC	VA-4221 [LA-571]
S-LC23	W	AE/DC	VA-4221 [LA-571]
S-LC24	X	AE/DC	VA-4221 [LA-571]
S-LC25	Y	AE/DC	VA-4221 [LA-571]
S-LC26	Z	AE/DC	VA-4221 [LA-571]

SEPAROS	PIVIL	PY-SET	BETA	PERCENTE	PERCENTE	SPEC.	SPEC.	SPEC.
.100	1.400	1500.000	.000	90.00	90.00	90.00	90.00	90.00
.200	1.400	1500.000	.000	90.00	90.00	90.00	90.00	90.00
.300	1.400	1500.000	.000	90.00	90.00	90.00	90.00	90.00



## EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACTERISTICS (2°, 4°, 6°, 8°)

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (S1008) □ AEDC VA-422[VA-57]. GRB/ET WRIGHT SRB  
 (S1026) ○ AEDC VA-422[VA-57]. GRB/ET WRIGHT SRB  
 (S1224) × AEDC VA-422[VA-57]. GRB/ET WRIGHT SRB



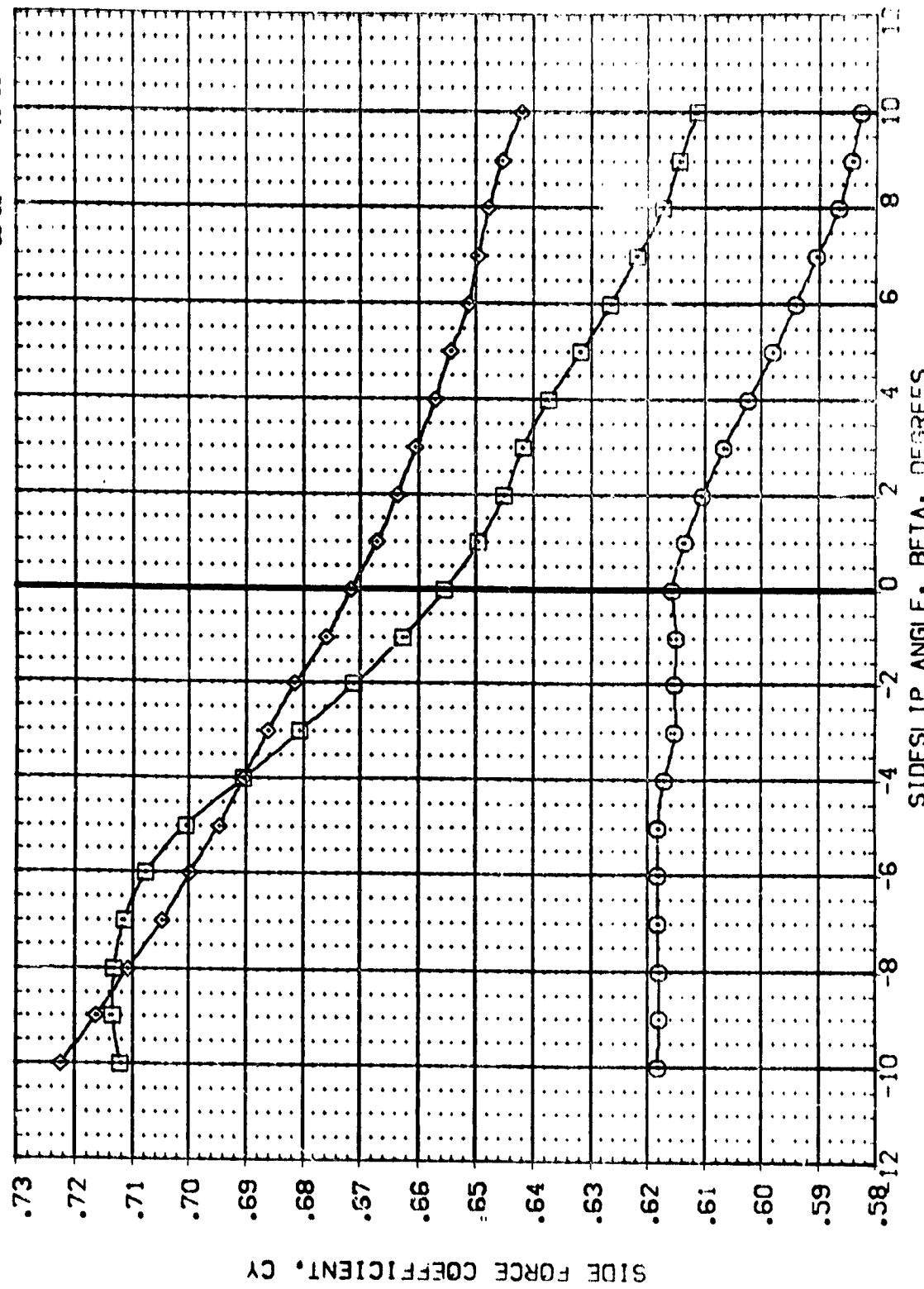
EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACTERISTICS (RM/L=1.4)

CAPACIT 4.50

DATE 253

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL008] AEDC VA-422([A-57]) ORBIT V/RIGHT SRB  
 [STL016] AEDC VA-422([A-57]) ORBIT V/RIGHT SRB  
 [STL-C24] AEDC VA-422([A-57]) ORBIT V/RIGHT SRB

REFPOS ROLL PT-JET ALPHA REFERENCE INFORMATION  
 .100 1.400 1500.000 .000 SREF 359.550 SCL 1.0  
 .200 1.400 1500.000 .000 LREF 350.300 SCL 1.0  
 .300 1.400 1500.000 .000 BREF 350.300 SCL 1.0  
 XNP 1.167 2000.000 .000 TNP 400.300 SCL 1.0  
 YNP 1.167 2000.000 .000 ZNP 350.300 SCL 1.0

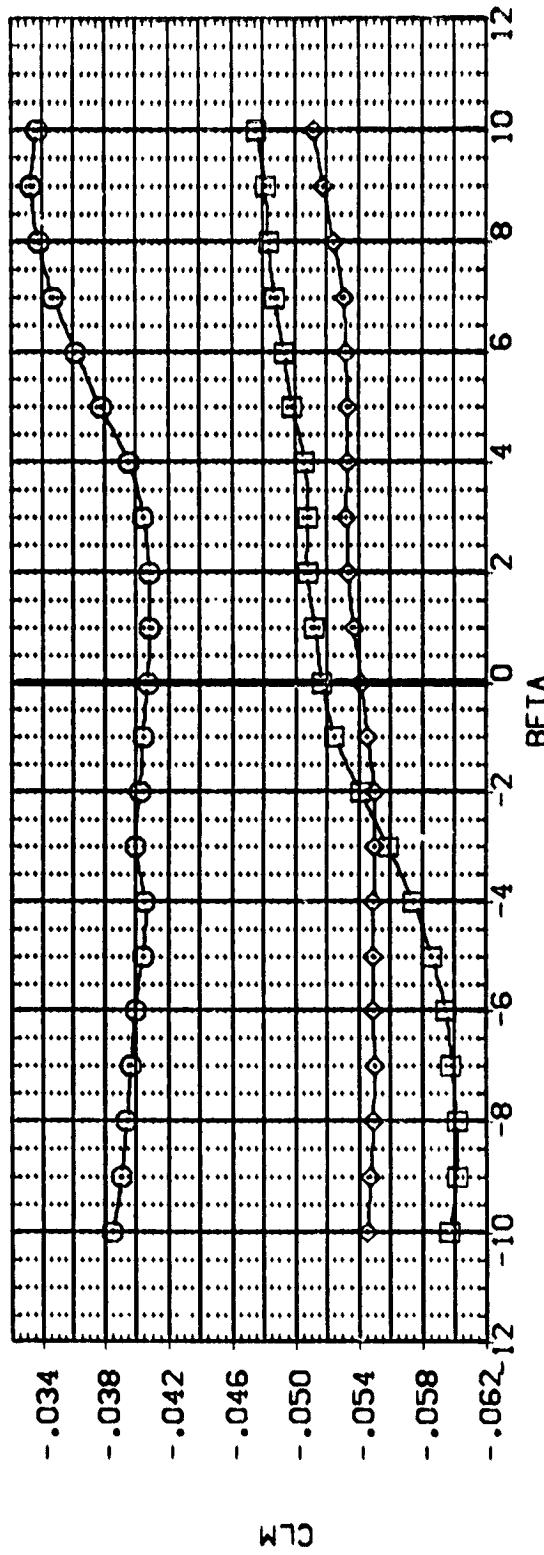
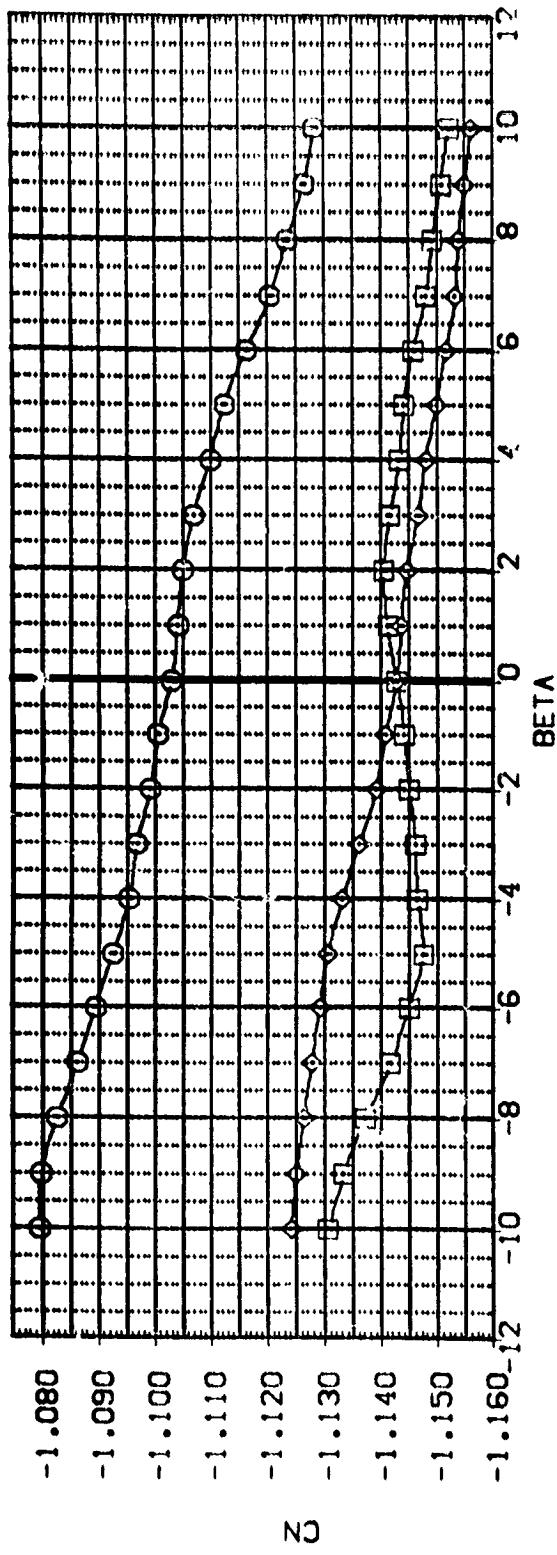


EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACTERISTICS (RN/L=1.4)  
 (A) MAC = 4.50



DATA SET SYMBOLS      CONFIGURATION DESCRIPTION  
 [STL008]      AEDC VA-422[LA-57]. GRB/ET V/RIGHT SRB  
 [STL016]      AEDC VA-422[LA-57]. GRB/ET V/RIGHT SRB  
 [STL024]      AEDC VA-422[LA-57]. GRB/ET V/RIGHT SRB

SERPOS      RNL/L      PT-JET      ALPHA      REFERENCE INFORMATION  
 .100      1.400 1500.000      .000      SREF      2600 0000 SQ.FT.  
 .200      1.400 1500.000      .000      LREF      1200 3000  
 .300      1.400 1500.000      .000      BREF      1200 3000  
 YREF      116 3000  
 YRP      400 3000  
 SCALE      .5

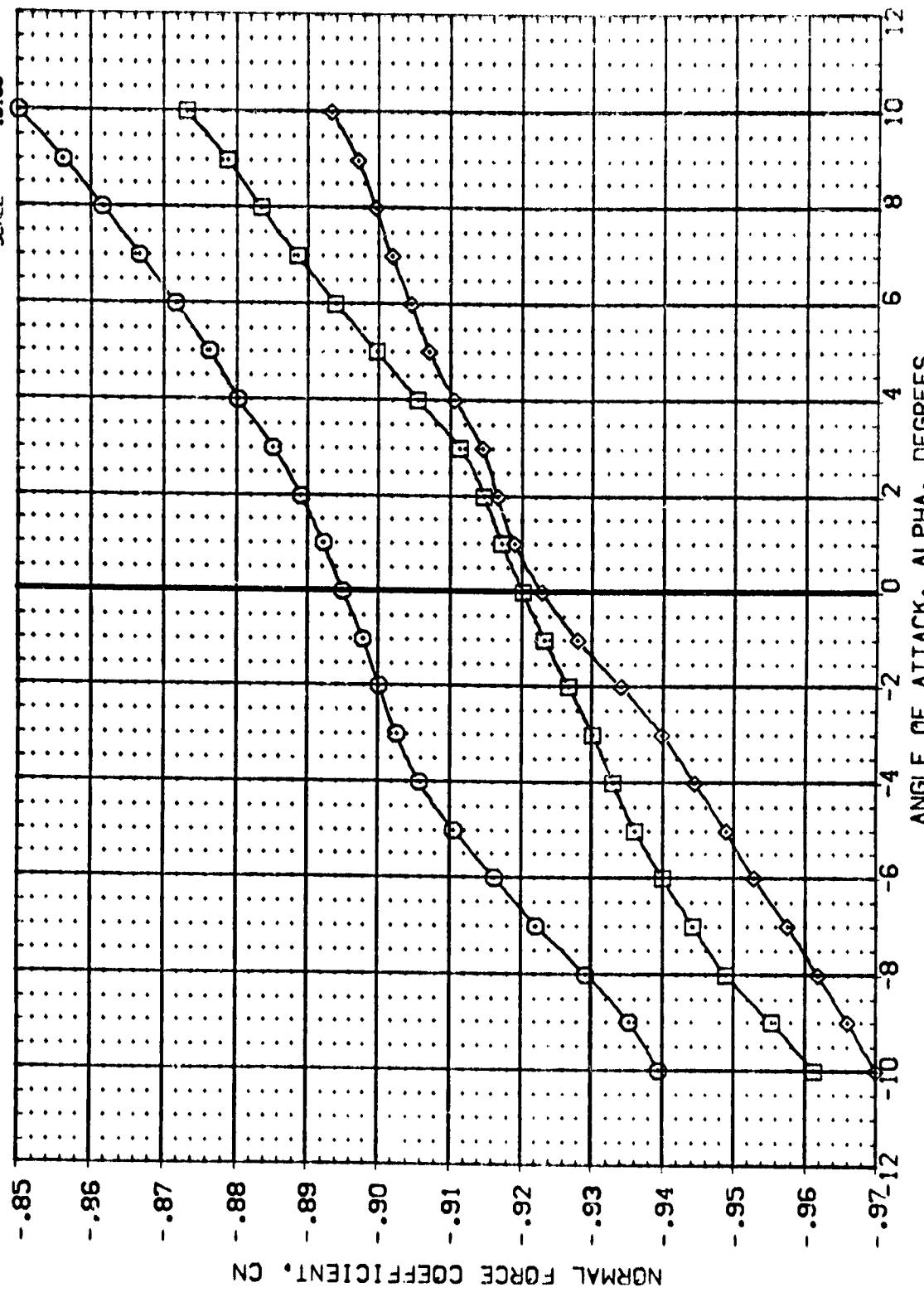


EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACTERISTICS (RM/L=1.4)  
 (AJMACH = 4.50)

## DATA SET SYMBOL CONFIGURATION DESCRIPTION

[STL013] AEDC VA-422[VA-57]. ORB/ET WRIGHT SRB  
 [STL021] AEDC VA-422[VA-57]. ORB/ET WRIGHT SRB  
 [STL029] AEDC VA-422[VA-57]. ORB/ET WRIGHT SRB

SETPOS	RN/L	PT-JET	BETA	REFERENCE INFORMATION
.100	1.750	1500.000	.000	SREF 2690.0000 SF.FT.
.200	1.750	1500.000	.000	LREF 1290.3000 IN.
.300	1.750	1500.000	.000	BREF 1290.3000 IN.
				XMP 1167.0000 IN.
				YMP 400.0000 IN.
				ZMP .0100 IN.
				SCALE .0100



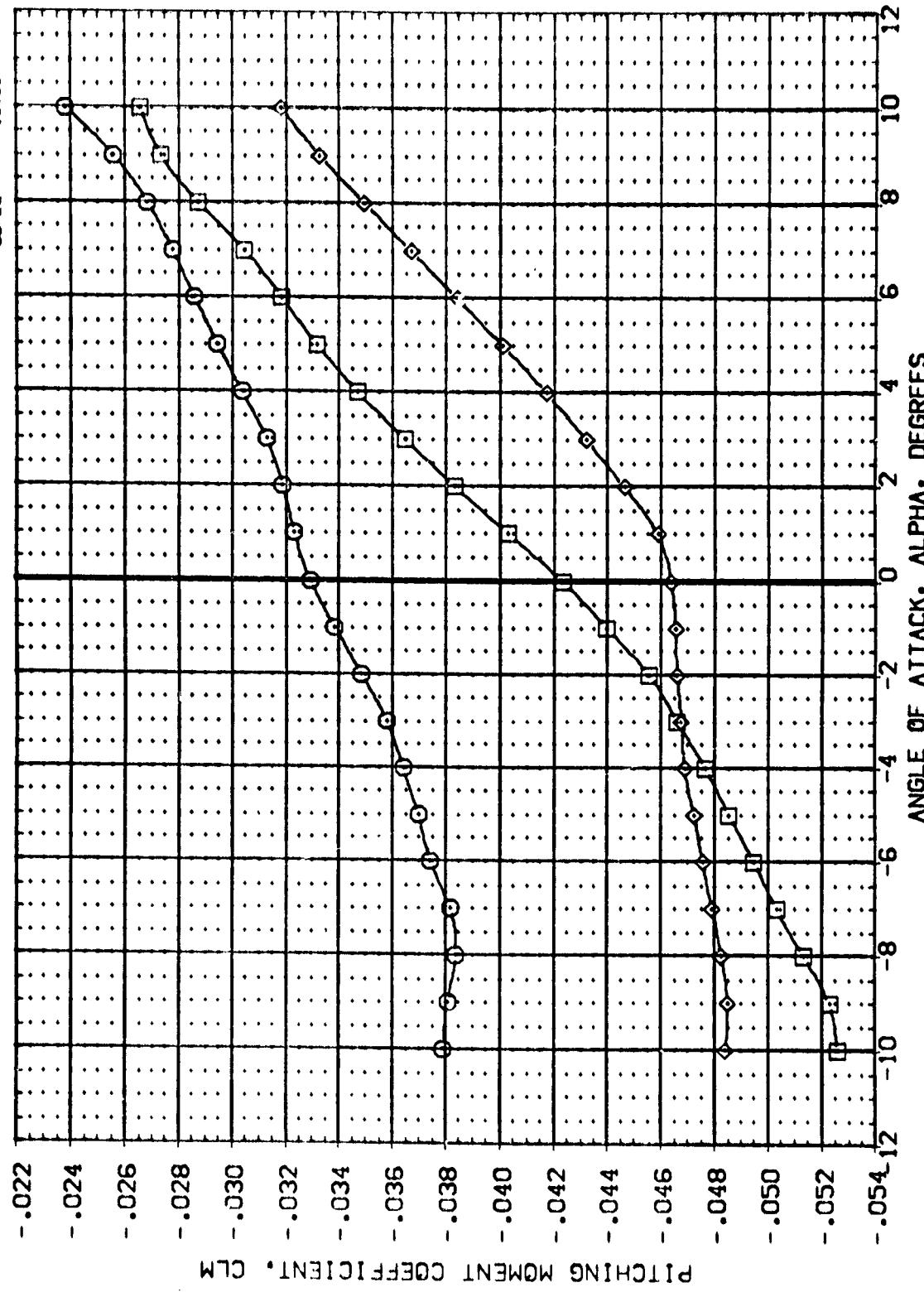
EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACT. (RN/L=1.76, PT-JET=1500)

COUCH 4.50

PIGS 265

DATA SET SYMBOL CONFIGURATION DESCRIPTION

STL0131	AEDC VA-422(I-A-571)	ORB/ET V/RIGHT SRB
STL0211	AEDC VA-422(I-A-571)	ORB/ET V/RIGHT SRB
STL0291	AEDC VA-422(I-A-571)	ORB/ET V/RIGHT SRB



EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACT. (RN/L=1.76, PI-JET=1500)

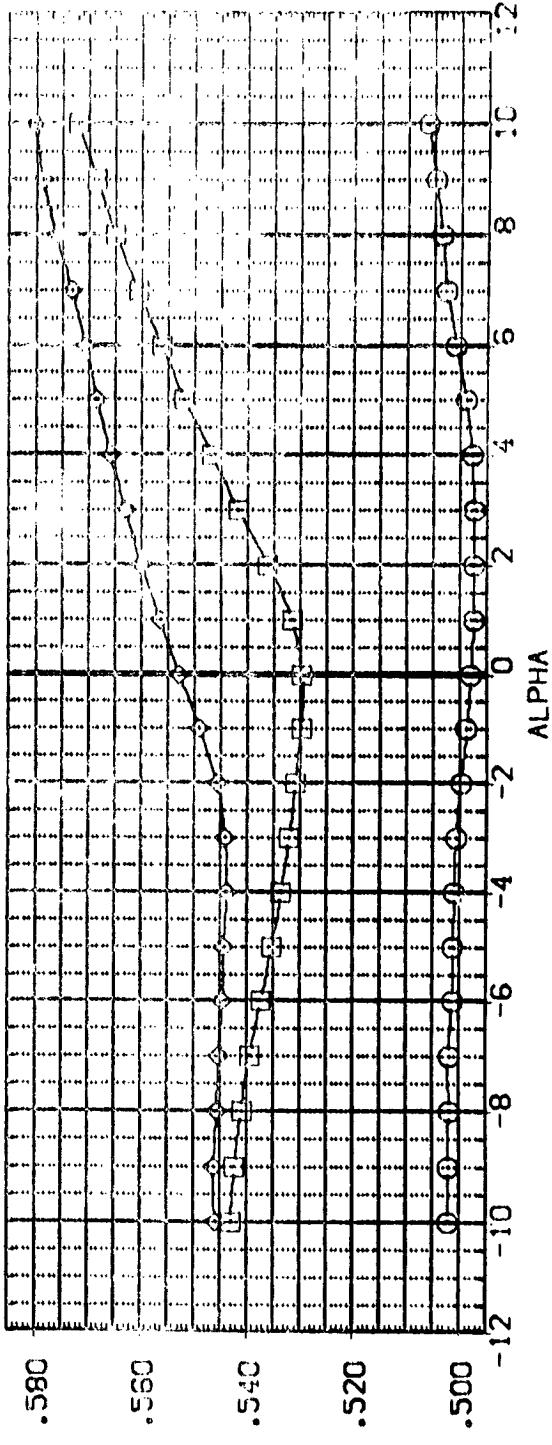
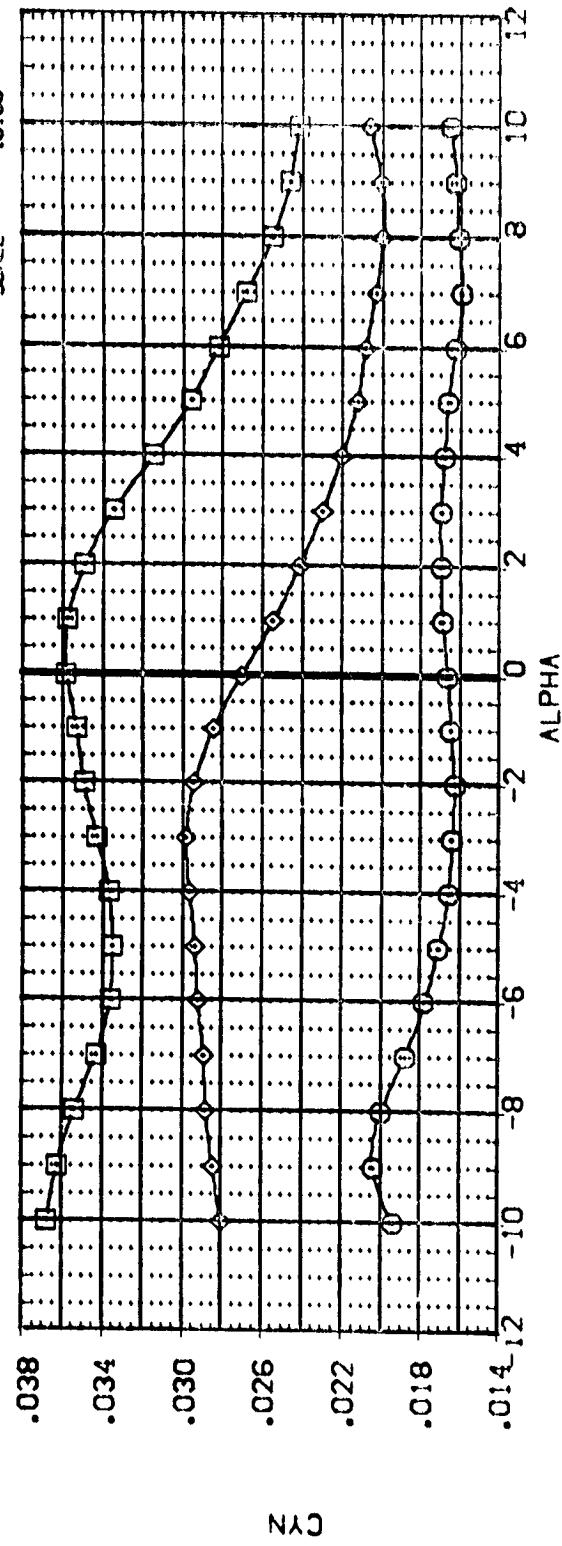
C<sub>A</sub>MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

STL013]	AEDC VA-422 [A-571] ORB/ET V/RIGHT SRB
STL021]	AEDC VA-422 [A-571] ORB/ET V/RIGHT SRB
STL029]	AEDC VA-422 [A-571] ORB/ET V/RIGHT SRB

REFERENCE INFORMATION  
 SRB F.T. 2600.0000  
 LREF 1250.3000  
 BREF 1250.3000  
 AREF 1150.0000  
 YREF 1000.0000  
 XREF 400.0000  
 SCALE .0100



EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACTERISTICS (RN/L = 1.76, PI-JET = 1500)  
 (A)YCH = 4.50

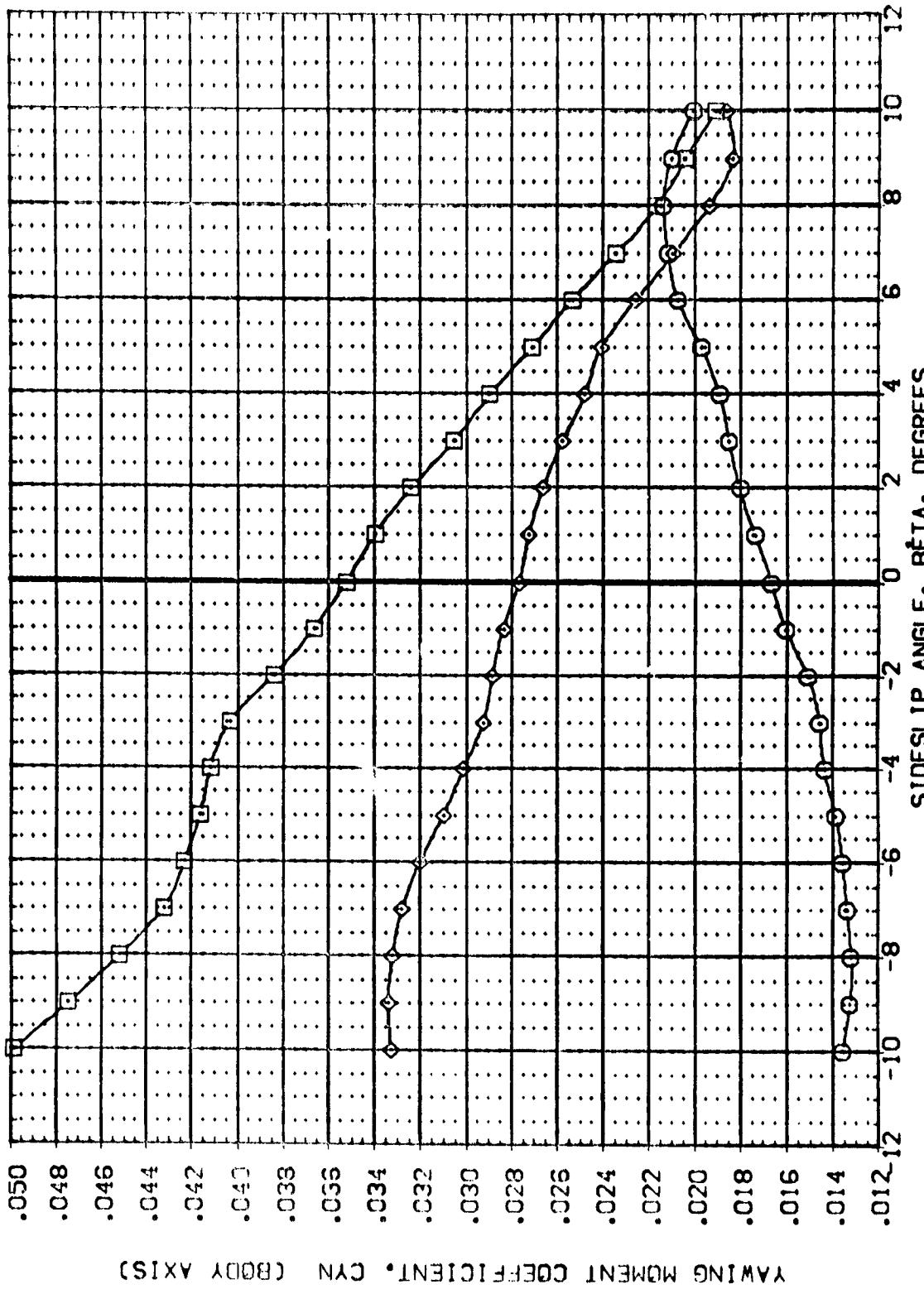


2525 258

DATA SET SYMBOL CONFIGURATION DESCRIPTION

STL014	AEDC	VA-422 [LA-57]; ORB/ET VRIGHT SRB
STL022	AEDC	VA-422 [LA-57]; ORB/ET VRIGHT SRB
STL030	AEDC	VA-422 [LA-57]; ORB/ET VRIGHT SRB

SRBPOS RNL PI-JET ALPHA REFERENCE INFORMATION  
 .100 1.760 1500.000 .000 SREF 2600.000 SD.FT.  
 .200 1.760 1500.000 .000 LREF 1290.3000  
 .300 1.760 1500.000 .000 BREF 1290.3000  
 AFBP 115.0000  
 YMBP 100.0000  
 TMBP 400.0000  
 SCAL.E



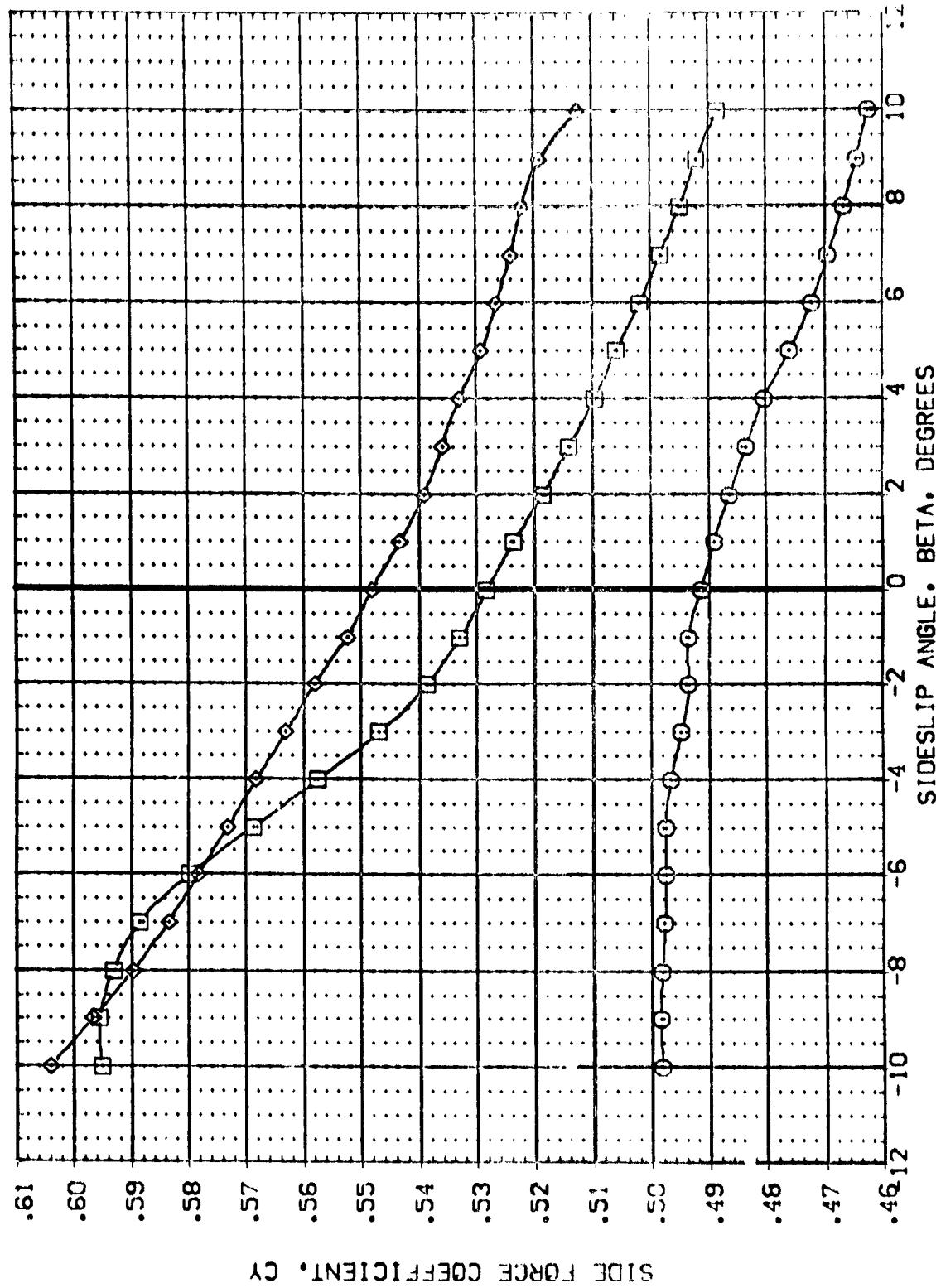
EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACTERISTICS. (RN/L=1.76, PI-JET=1500)

(AJWACH 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [ST-014] AEDC VA-422(LA-57) ORB/ET V/RIGHT SRB  
 [ST-022] AEDC VA-422(LA-57) ORB/ET V/RIGHT SRB  
 [ST-330] AEDC VA-422(LA-57) ORB/ET V/RIGHT SRB

SRPOS RV/L PT-JET ALPHA REFERENCE IN DEGREES  
 .100 1.760 1500.000 .000 SREF 2690.0000 SO.FT.  
 .200 1.760 1500.000 .000 LREF 1390.3000 N  
 .300 1.760 1500.000 .000 BREF 1390.3000 N  
 VREF 1.67 .0000 N  
 YREF 400.0000 N  
 SCALE .0000 N



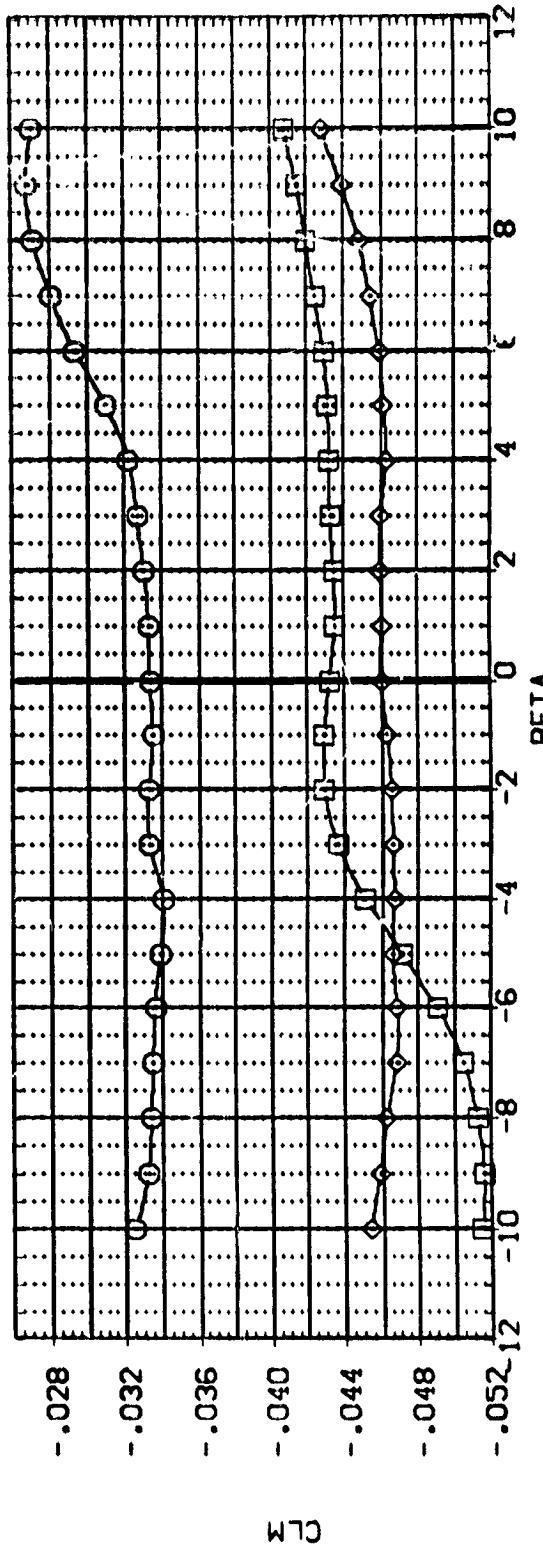
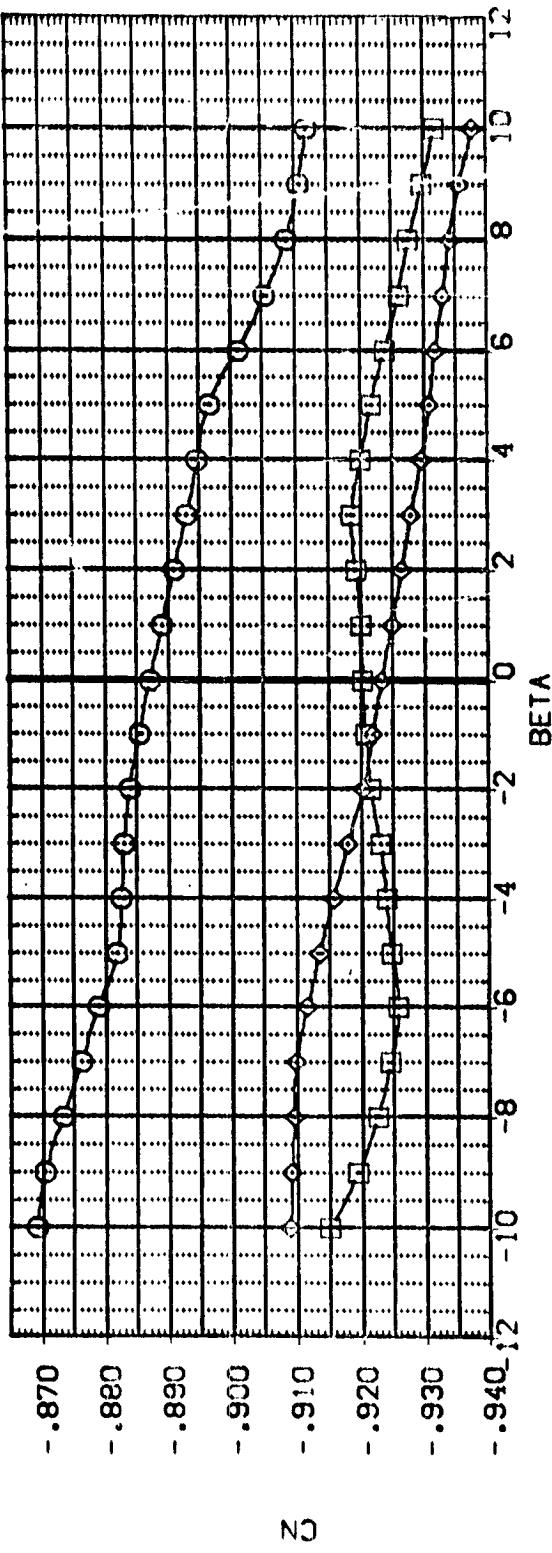
EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACT. (RN/L=1.76, PI-SET=1500)  
 (AIRCRAFT = 4.50)



DATA SET SYMBOL CONFIGURATION DESCRIPTION

STL(4)	A	GRB/ET V/RIGHT SRB
STL(22)	AEDC	GRB/ET V/RIGHT SRB
STL(30)	AEDC	GRB/ET V/RIGHT SRB
		GRB/ET V/RIGHT SRB

SRBPOS RM/L PT-JET ALPHA DIFFERENCE IN GRADITION  
 .100 1.760 1500.000 .000 SREF 2690 .0000 SC.FT.  
 .200 1.760 1500.000 .000 LREF 1290 .3000 N.  
 .300 1.760 1500.000 .000 BREF 1190 .3000 N.  
 X5 1167 .0000 K.  
 Y5 1000 .0000 K.  
 Z5 400 .0000 K.  
 SCALE .0100



EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACT. (RM/L=1.76. PT-JET=1500)

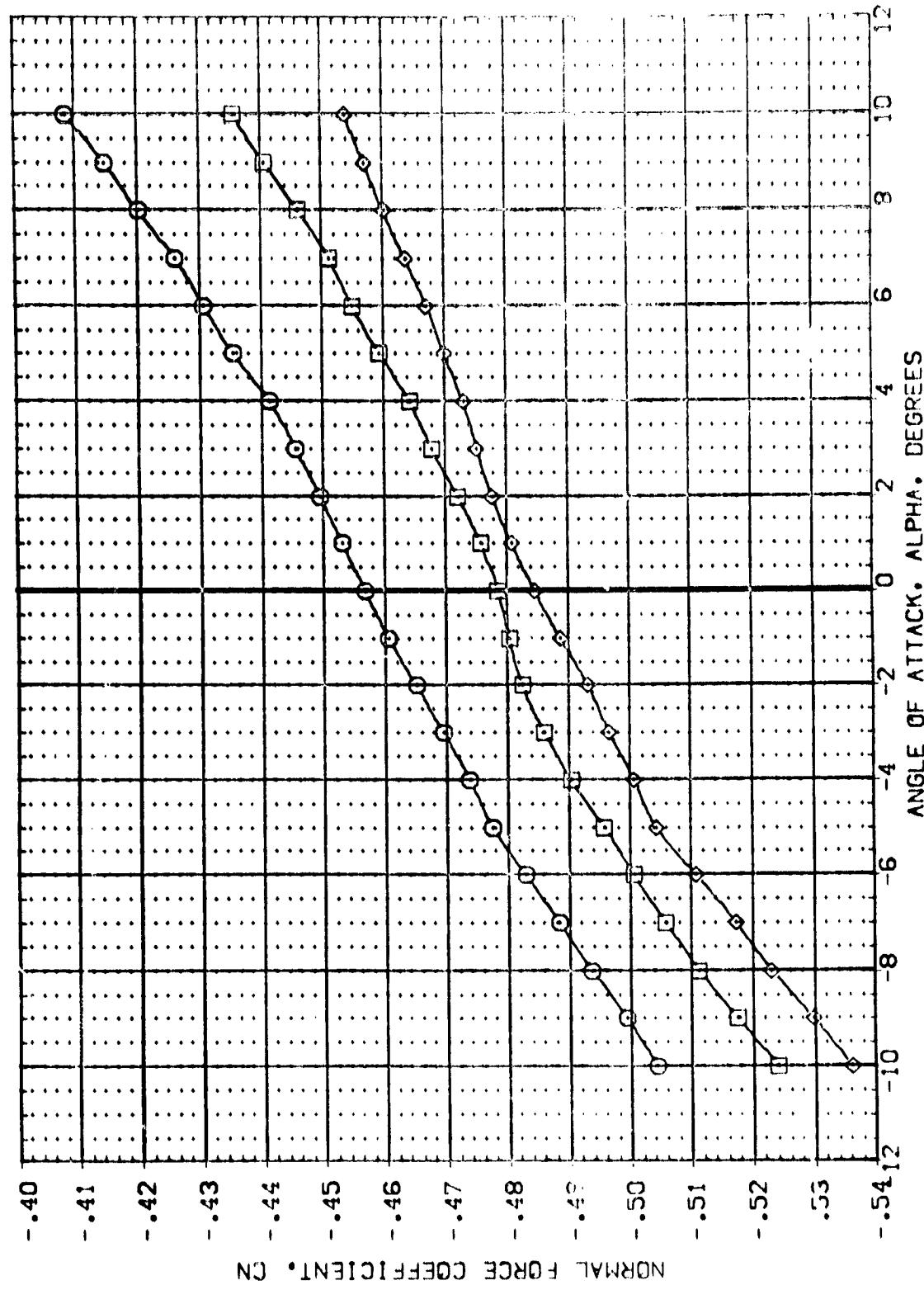
(A) MACH 4.50

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## DATA SET SYMBOL CONFIGURATION DESCRIPTION

[STL011] AEDC VA-422(LA-57). ORB/ET WRIGHT SRB  
 [STL012] AEDC VA-422(LA-57). ORB/ET WRIGHT SRB  
 [STL027] AEDC VA-422(LA-57). ORB/ET WRIGHT SRB

SRBPOS RV/L PI-JET BETA  
 .100 1.760 750,000 .000 SREF 2690 3000 SQ.FT.  
 .200 1.760 750,000 .000 LREF 1290 3000 IN.  
 .300 1.760 750,000 .000 XREF 1167 3000 IN.  
 YREF 2780 400 0.000 IN.  
 ZREF 400 0.000 IN.



EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACT. (RN/L=1.76, ST-CR=750)

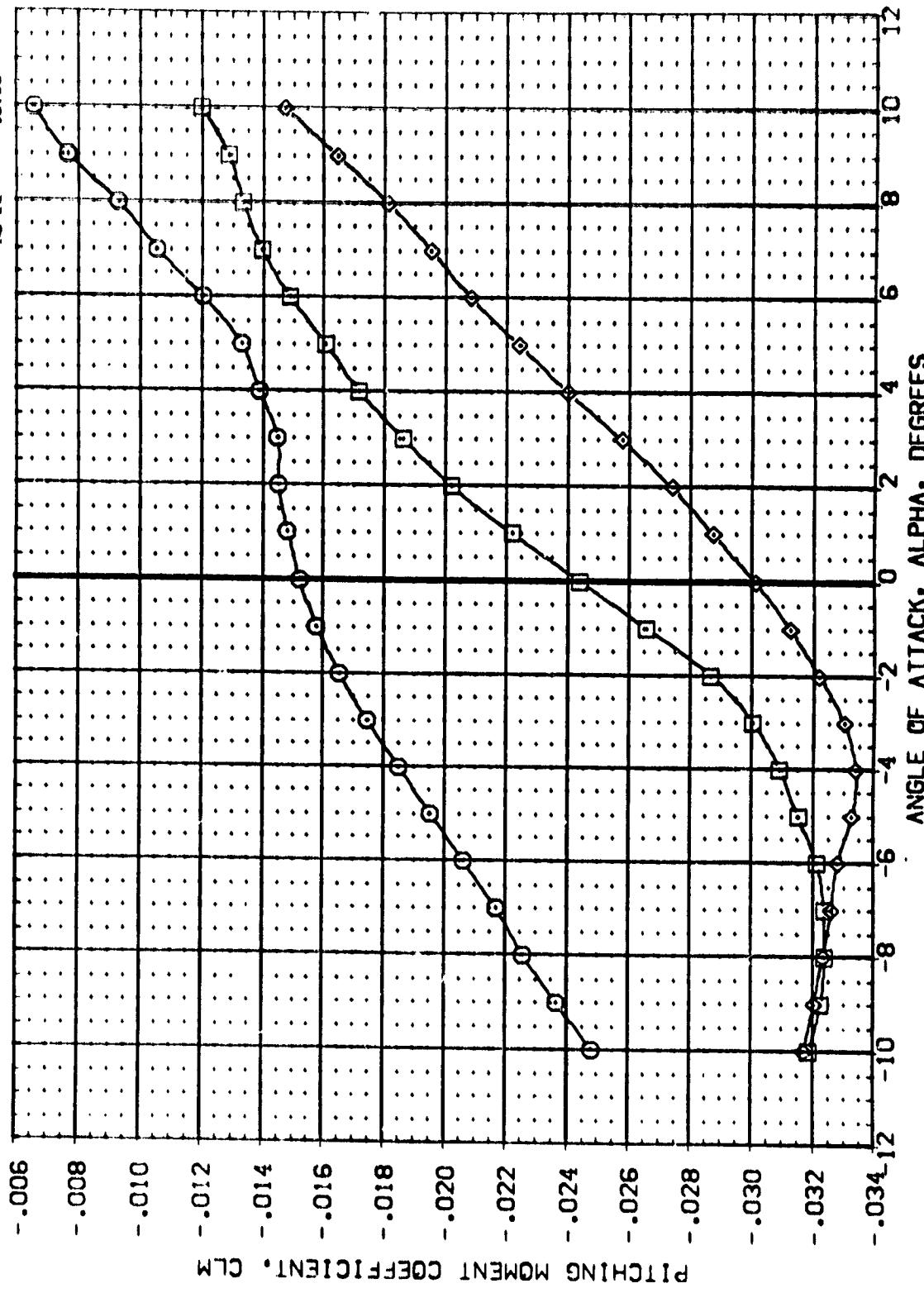
CANACH = 4.5C



DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
S-011	AEDC	VA-4221(A-571)
S-019	AEDC	VA-4221(A-571)
S-079	AEDC	VA-4221(A-571)
S-1	AEDC	VA-4221(A-571)

SPECS		REFERENCE ID	
R/N/L	PT-JET	BETA	SPEC
.100	1-760	.750 .000	.000
.200	1-760	.750 .000	.000
.300	1-760	.750 .000	.000

STEPS	PN/VL	PT-JET	BETA	REFERENCE NO. & PAPER
.100	1.760	750.000	.000	SPEF
.200	1.760	750.000	.000	SPEF
.300	1.760	750.000	.000	SPEF



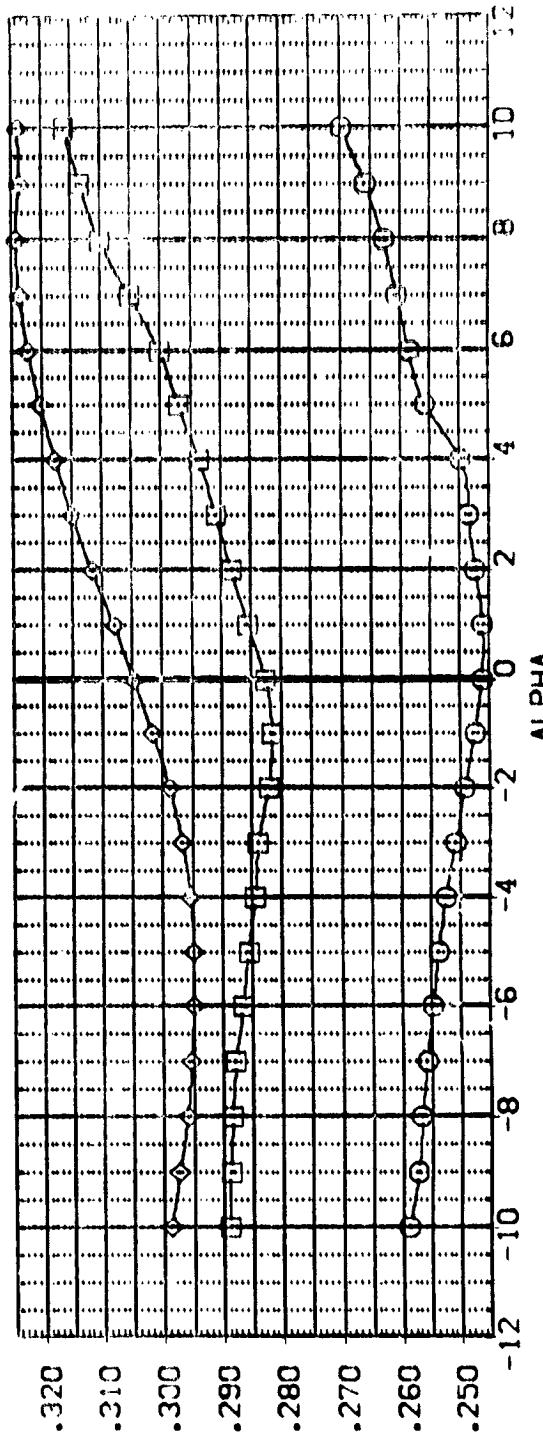
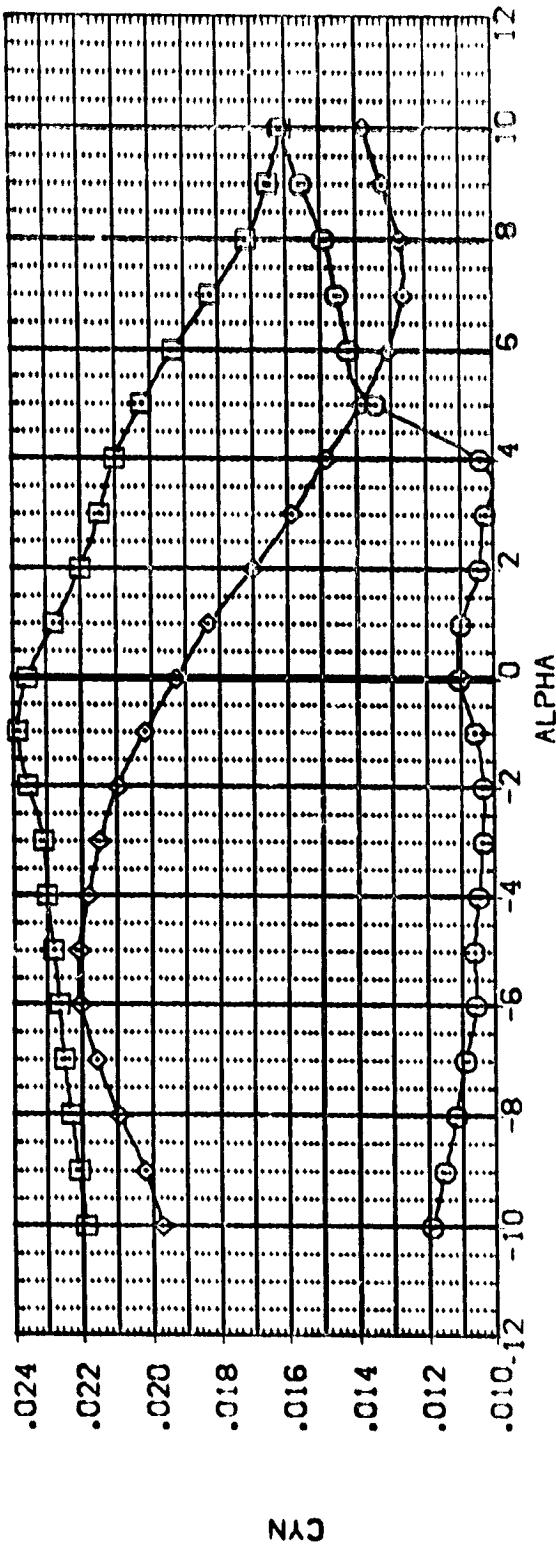
## EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACT. (RN/L=1.76, PT-JET=750)

$$[Ca]_{MACH} = 4.50$$

DATA SET NUMBER CONFIGURATION DESCRIPTION

ST-0111	AEDC	VA-4221(IA-571)	SRB/ET	WRIGHT
ST-0112	AEDC	VA-4221(IA-571)	SRB/ET	WRIGHT
ST-0191	AEDC	VA-4221(IA-571)	SRB/ET	WRIGHT
ST-0271	AEDC	VA-4221(IA-571)	SRB/ET	WRIGHT

REFPOS ROLL PT-JET BETA REFERENCE INFORMATION  
 .100 1.750 750.000 .000 SRF 3500.000 SF.FT.  
 .200 1.750 750.000 .000 LRF 3500.000 SF.FT.  
 .300 1.750 750.000 .000 3500.000 SF.FT.  
 X5 1.750 750.000 .000 3500.000 SF.FT.  
 Y5 1.750 750.000 .000 3500.000 SF.FT.  
 Z5 1.750 750.000 .000 3500.000 SF.FT.  
 SCALE .0100

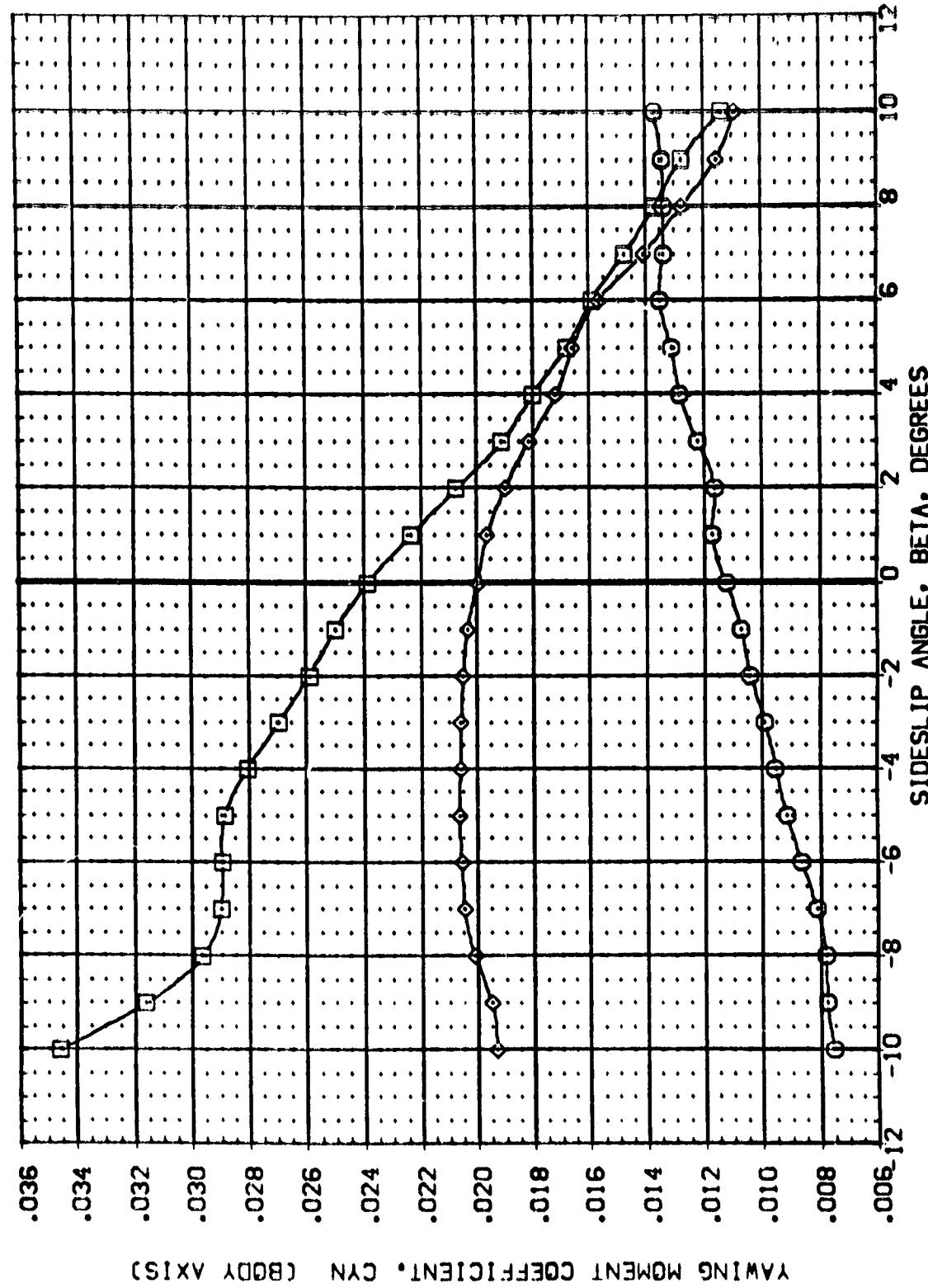


EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHRACT. (RN/L=1.76, ST-0111, 2500 SF.FT.)  
 $(A)_{WAC4} = 4.50$



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [S1] 012 AEDC VA-422/[A-57]; ORB/ET V/RIGHT SRB  
 [S1] 028 AEDC VA-422/[A-57]; ORB/ET V/RIGHT SRB  
 [S1] 038 AEDC VA-422/[A-57]; ORB/ET V/RIGHT SRB

REFERENCE INFORMATION  
 SEPPOS RNL PT-JET ALPHA  
 .100 1.760 750.000 .000  
 .200 1.760 750.000 .000  
 .300 1.760 750.000 .000  
 SCALE .000  
 .005  
 .010  
 .015  
 .020  
 .025  
 .030  
 .035



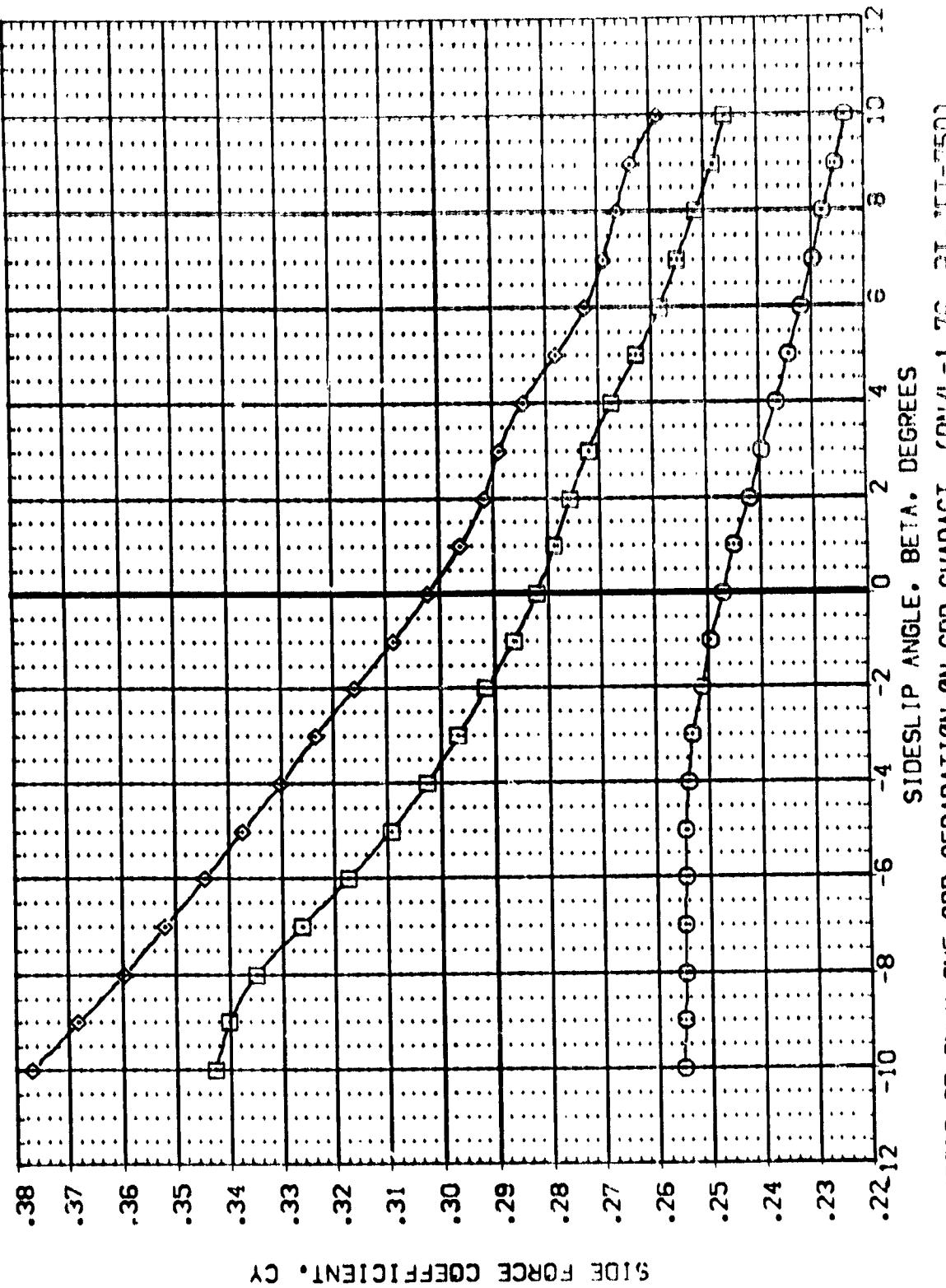
EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACT. (RN/L=1.76, PT-JET=750)

(AJMACH = 4.50

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DATA SET STREAM	CONFIGURATION	DESCRIPTION
[STL012]	VA-4221A-571	ORBIT WEIGHT
[STL020]	AEDC	ORBIT WEIGHT
[STL028]	VA-4221A-571	ORBIT WEIGHT
	AEDC	ORBIT WEIGHT

STEPS	RNL	PT-JET	ALPHA	REFERENCE INFORMATION	SD FT.
.100	1.760	750.000	.000	REF	2690.000
.200	1.760	750.000	.000	REF	1290.300
.300	1.760	750.000	.000	REF	115.300

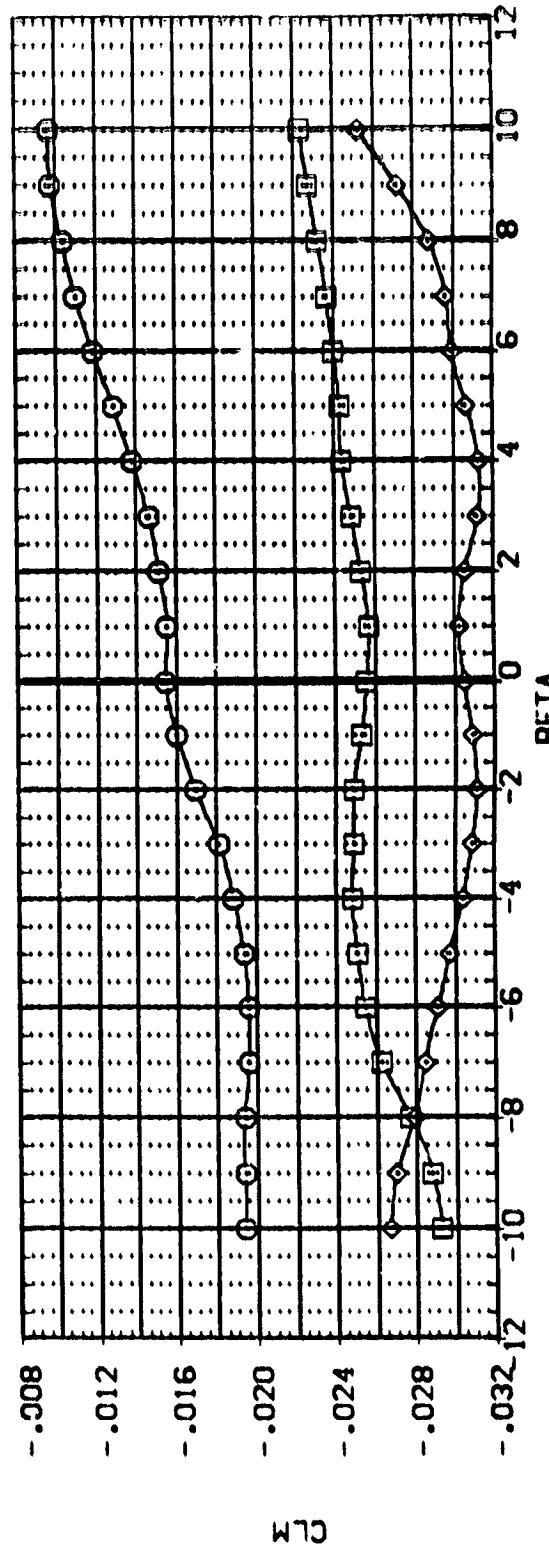
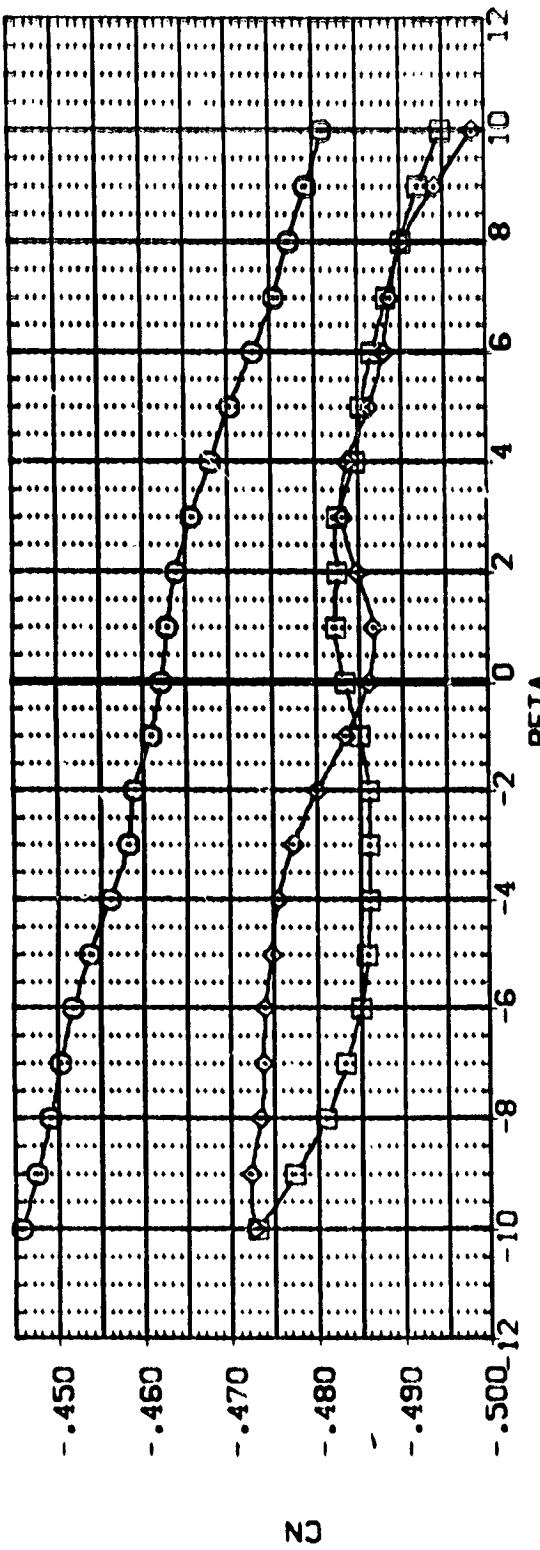


EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACT.

$$C_{\text{AMAC4}} = 4.50$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SUPERVISOR
STL012	AEDE VA-4221 [A-S71] ORB/ET V/RIGHT	SRB
STL021	AEDE VA-4221 [A-S71] ORB/ET V/RIGHT	SRB
STL028	AEDE VA-4221 [A-S71] ORB/ET V/RIGHT	SRB

STRENGTHS	AVL	PT-SET	ALPHA	PREFERENCE	STATISTICS
.100	1.760	750,000	.000	SREF	2690,3000
.200	1.760	750,000	.000	BREF	1790,3000
.300	1.760	750,000	.000	CREF	1230,3000

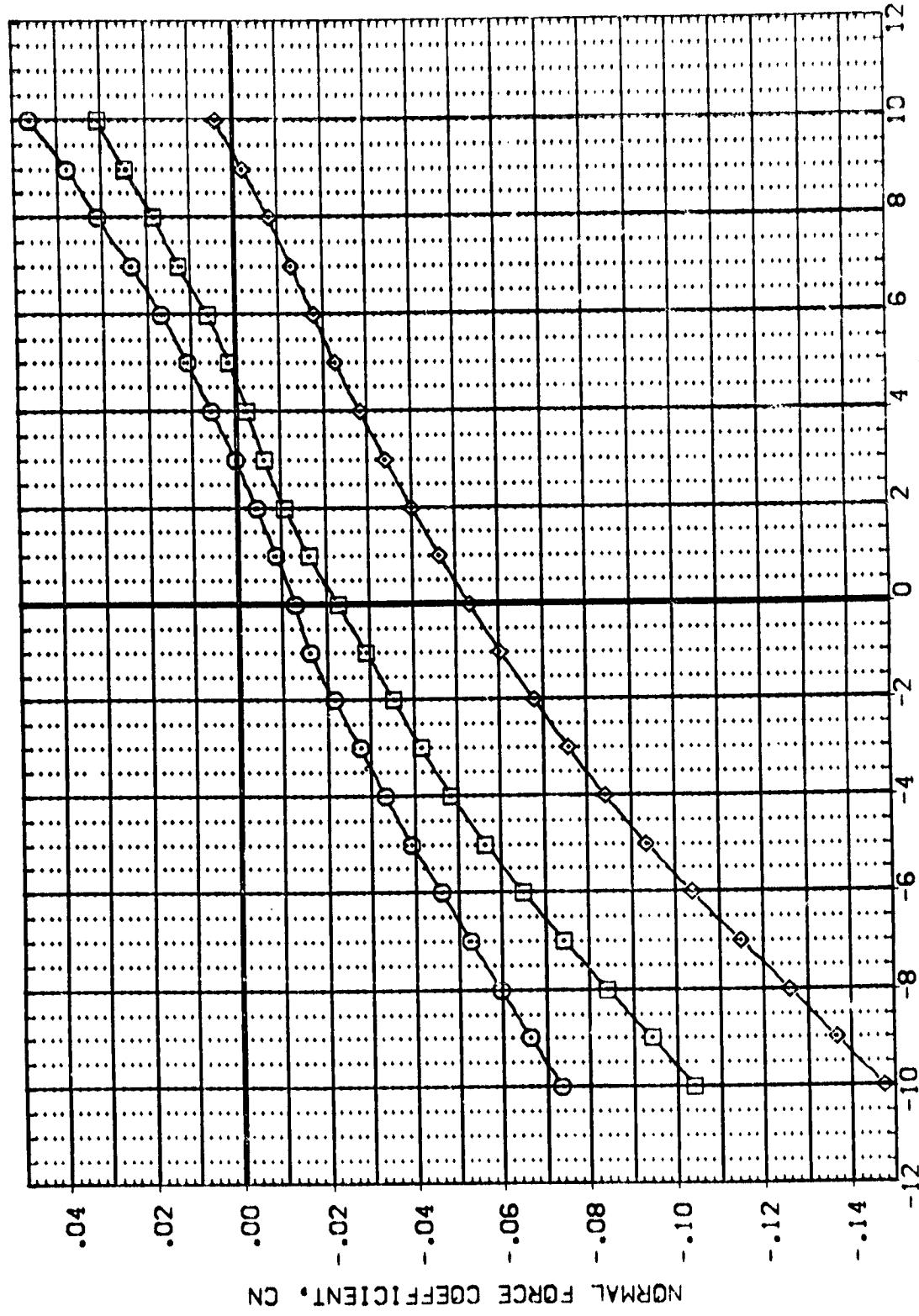


EFFECT OF ONLY ONE SRB SEPARATION ON SRB CHARACTER. (RNA/L=1.76, PT-JET=750)

S.V.E.: 3  
5  
E.I. E.C.:  
[A]MACH 4:50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL008] AEDC VA-422(VA-57) ORB/ET WRIGHT SRB  
 [STL017] AEDC VA-422(VA-57) ORB/ET WRIGHT SRB  
 [STL025] AEDC VA-422(VA-57) ORB/ET WRIGHT SRB

SRPOS	RNL	P1-JET	BETA	REFERENCE INFORMATION
.100	1.760	.000	.000	SHEF 7680 .0000 50.4
.200	1.760	.000	.000	LREF 1280 .3000 50.4
.300	1.760	.000	.000	BREF 1280 .3000 50.4
				XMPD 1.67 .0000 50.4
				YMPD 1.67 .0000 50.4
				ZMPD 1.67 .0000 50.4
				YNS 400 .0000 50.4
				ZNS 7742 .0000 50.4



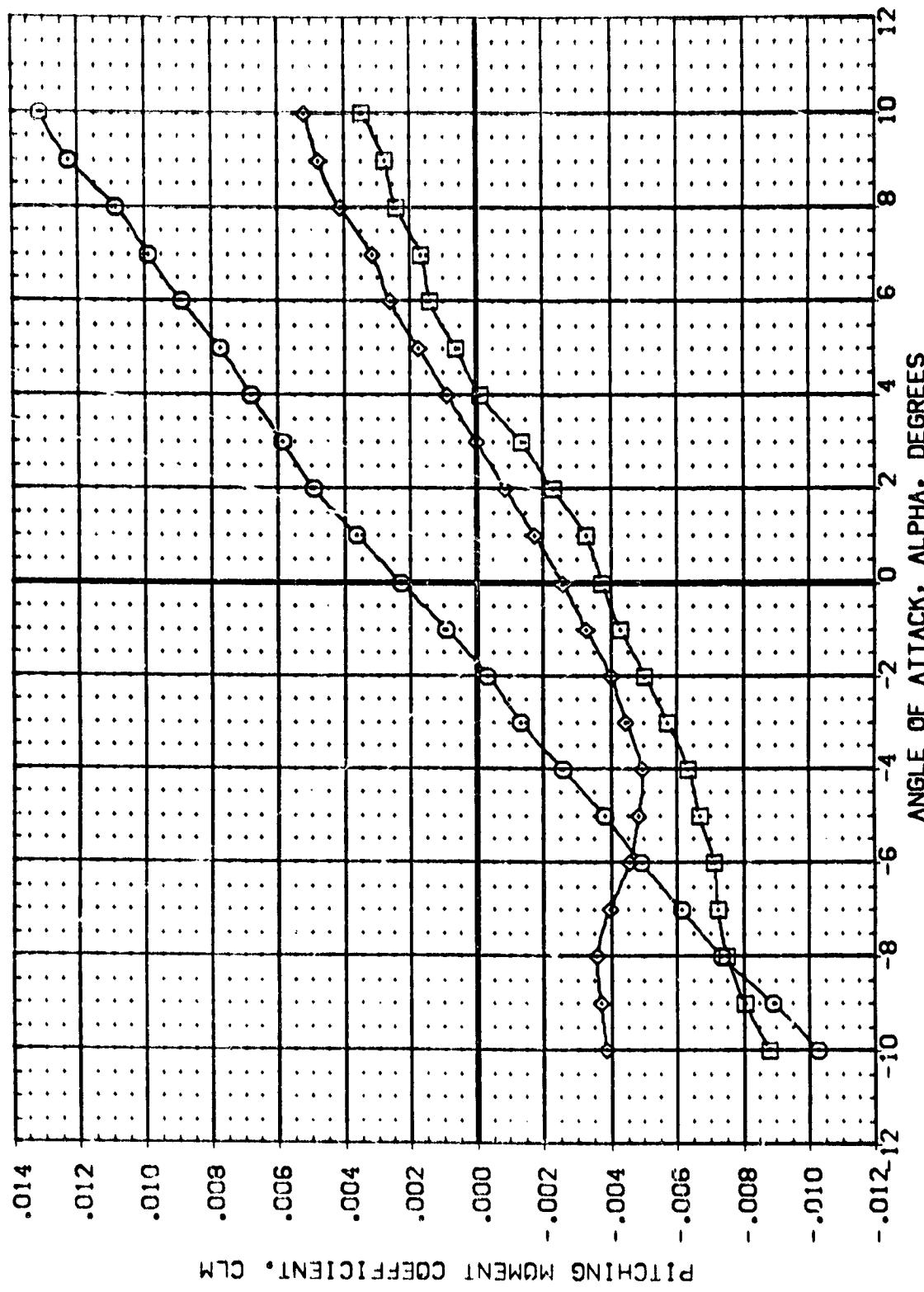
EFFECT OF ONLY ONE SRB W/0 PLUMES SEPARATION ON SRB CHARACT. (RNL=1.76)

CLWACH = 4.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[STL009]	VA-4221(A-571)
S-1	VA-4221(A-571)
S-2	VA-4221(A-571)
S-3	VA-4221(A-571)
AEDC	ORBIT

REFERENCE INFORMATION				SO. F. I.
SERIALS	RNL	PI-ET	BETA	SREF
.100	1.760	.000	.000	2890.0000
.200	1.760	.000	.000	1250.3000
.300	1.760	.000	.000	1250.2000
				1150.1000
				1000.0000
				400.0000
				200.0000



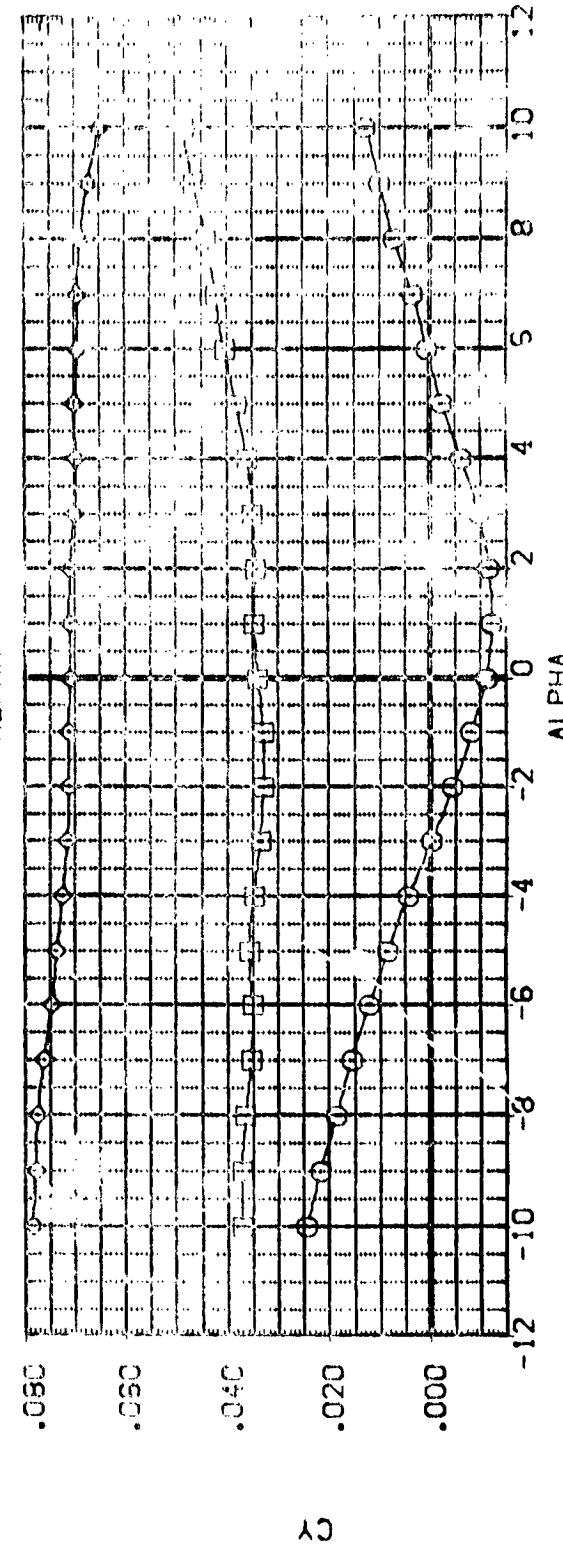
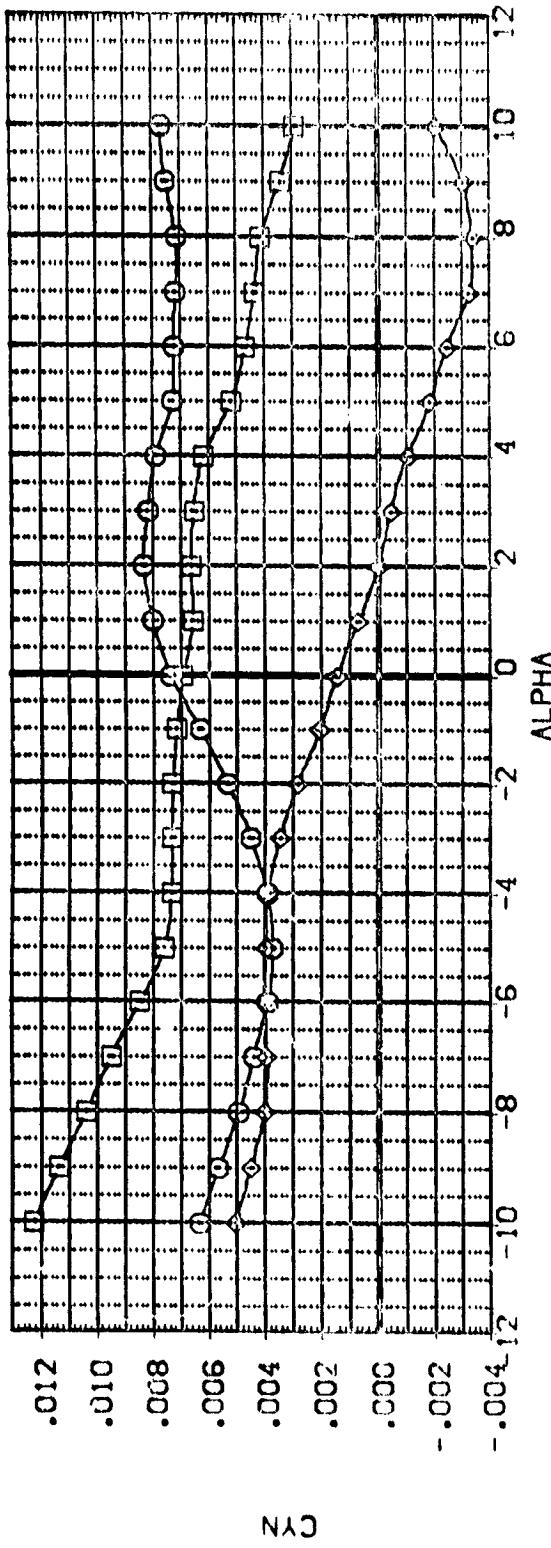
## EFFECT OF ONLY ONE SRB W/0 PLUMES SEPARATION ON SRB CHARACT. (RN/L=1.76)

$$[C_2H_5]_2NCH_3 = 4.50$$

## DATA SET SYMBOL

CONFIGURATION DESCRIPTION  
 ST-009 AEDC VA-422(A-57). ORB/ET V/RIGHT SRB  
 ST-017 AEDC VA-422(A-57). ORB/ET V/RIGHT SRB  
 ST-025 AEDC VA-422(A-57). ORB/ET V/RIGHT SRB

SRBPOS RBL PI-JET BETA REFERENCE INFORMATION  
 .100 1.760 .000 SREF 2690.0000 SD.FT.  
 .200 1.760 .000 LREF 1390.3000  
 .300 1.760 .000 BREF 150.3000  
 XMRP 16.3000  
 YMRP 400.0000  
 ZMRP .0000  
 SCALE .0.C.C.

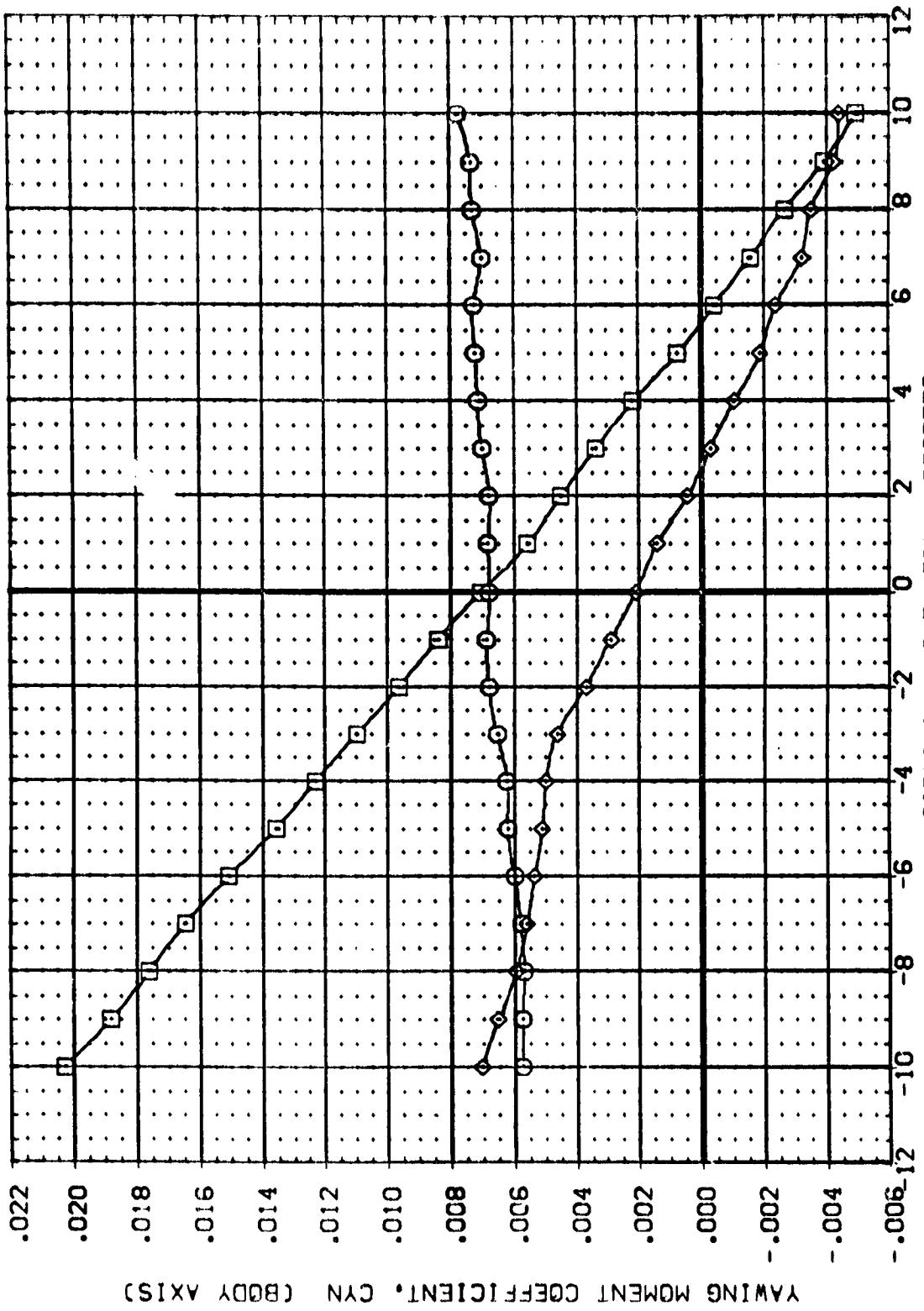


EFFECT OF ONLY ONE SRB W/O PLUMES SEPARATION ON SRB CHRACT.  $\beta_{\text{sr}}^{\text{m}}/\beta_{\text{et}}^{\text{m}} = 1.72$

C<sub>A</sub>MACH = 4.50

DATA SET SYMBOLS. CONFIGURATION DESCRIPTION  
 (SRB/ET) AEDC VA-4221(A-57). ORB/ET V/RIGHT SRB  
 (SRB/ET) AEDC VA-4221(A-57). ORB/ET V/RIGHT SRB  
 (SRB/ET) AEDC VA-4221(A-57). ORB/ET V/RIGHT SRB

SRBPOS RV/L PT-JET ALPHA REFERENCE INFORMATION  
 .100 1.750 .000 SREF 2680.3000 SQ.FT.  
 .200 1.750 .000 LREF 1250.3000 IN.  
 .300 1.750 .000 BREF 1150.3000  
 .000 .000 XMP 1.5 .0000  
 .000 .000 YMP 1.5 .0000  
 .000 .000 ZMP 1.5 .0000  
 SCALE .01:0.30



EFFECT OF ONLY ONE SRB W/0 PLUMES SEPARATION ON SRB CHARACT. (RN/L=1.76)

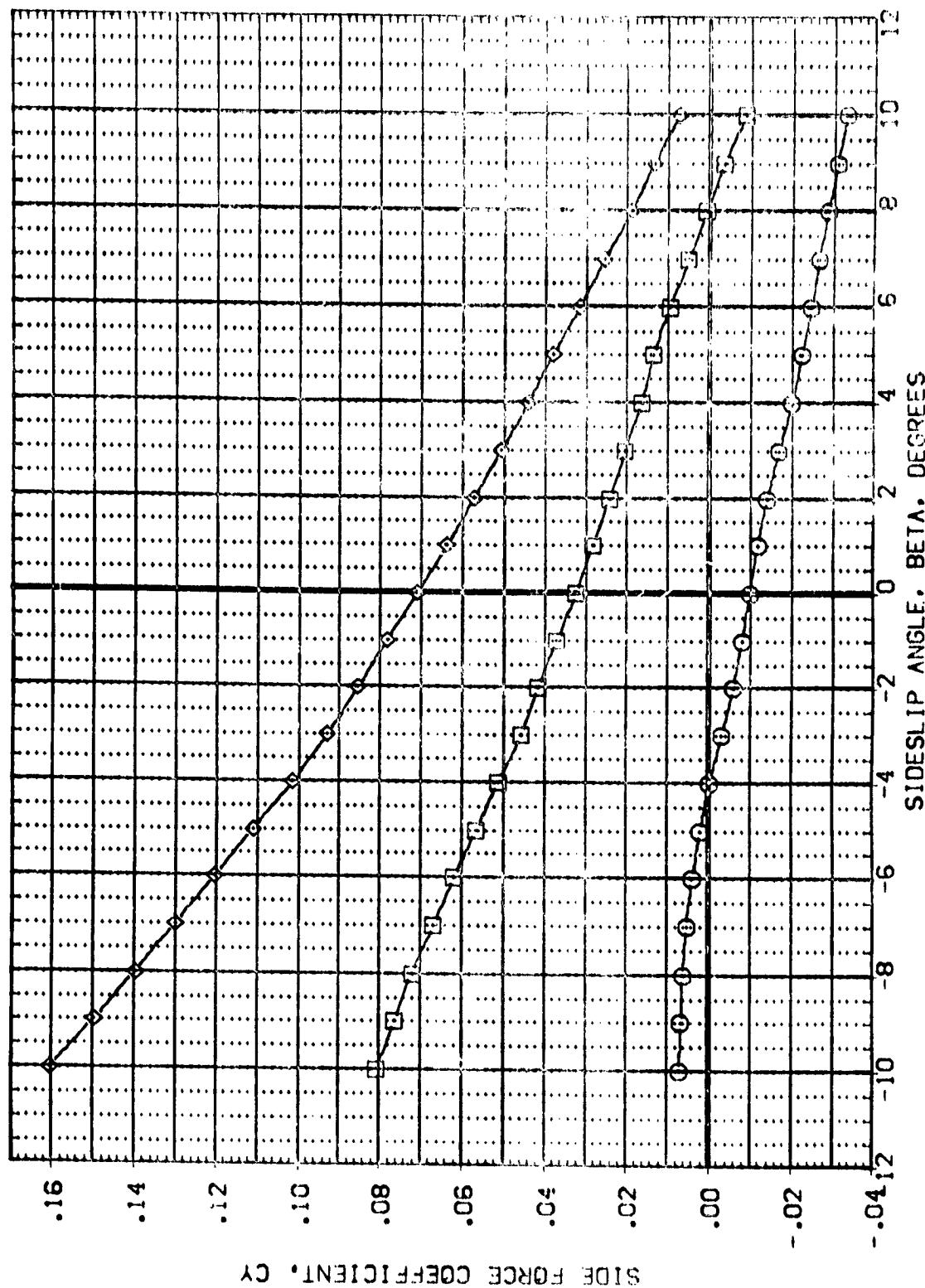
(A) MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

{STL010}	AEDC VA-422(1A-57), GRB/EET V/RIGHT SRB
{STL018}	AEDC VA-422(1A-57), GRB/EET V/RIGHT SRB
{STL026}	AEDC VA-422(1A-57), GRB/EET V/RIGHT SRB

SRPOS R/V/L PT-JET ALPHA REFERENCE INFORMATION  
.100 1.760 .000 SREF 2590.0000 SC.F.  
.200 1.760 .000 LREF 1290.3000  
.300 .000 .000 BREF 1290.3000  
XREF 1167.0000  
YREF 400.0000  
ZREF 100.0000  
SCALE .100



SIDE FORCE COEFFICIENT,  $C_y$

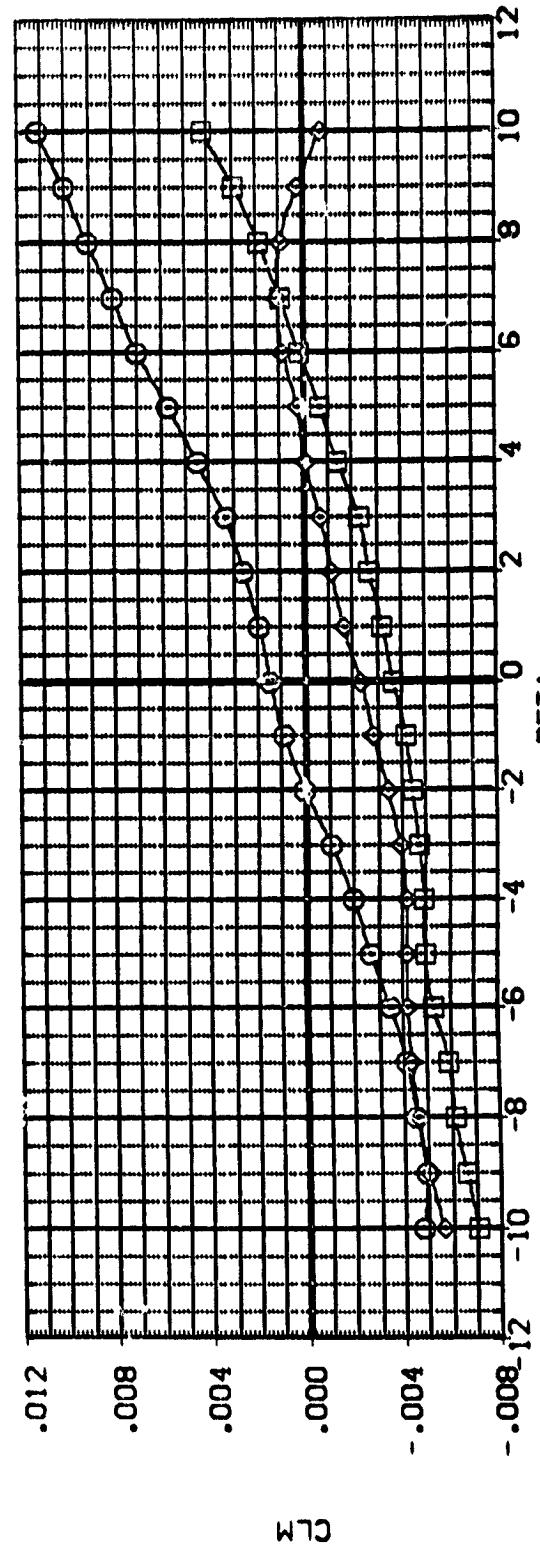
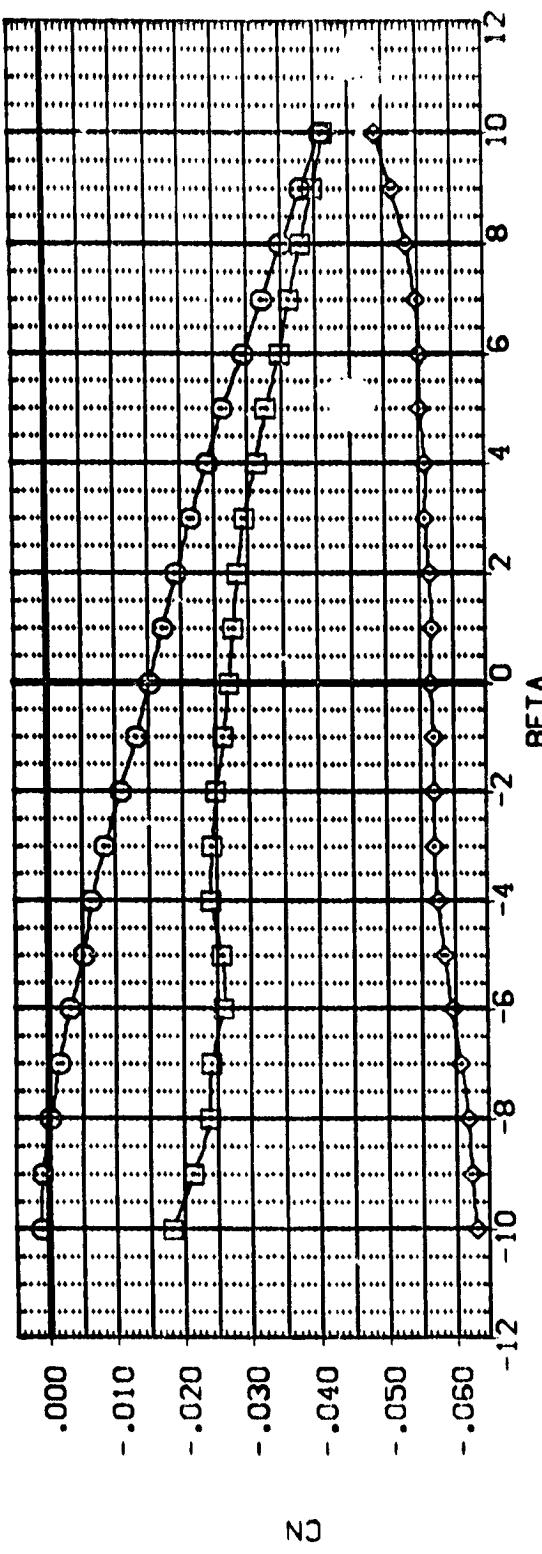
EFFECT OF ONLY ONE SRB W/0 PLUMES SEPARATION ON SRB PLUMES. (MACH = 1.75)

(A) MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [S1L010] ORB/ET V/RIGHT SRB  
 AE/DC VA-42211A-571; ORB/ET V/RIGHT SRB  
 [S1L018] ORB/ET V/RIGHT SRB  
 AE/DC VA-42211A-571; ORB/ET V/RIGHT SRB  
 [S1L026] ORB/ET V/RIGHT SRB  
 AE/DC VA-42211A-571; ORB/ET V/RIGHT SRB

REFERENCE INFORMATION  
 SPOS RVL PT-JET ALPHA SREF SD.FT.  
 .100 1.760 .000 .000 SREF 2690.0000 SD.FT.  
 .200 1.760 .000 .000 LREF 1290.3000 SD.FT.  
 .300 1.760 .000 .000 BREF 1290.2000 SD.FT.  
 XHSP 1167.0000 SD.FT.  
 YHSP 400.0000 SD.FT.  
 ZHSP 400.0000 SD.FT.  
 SCALE .0100

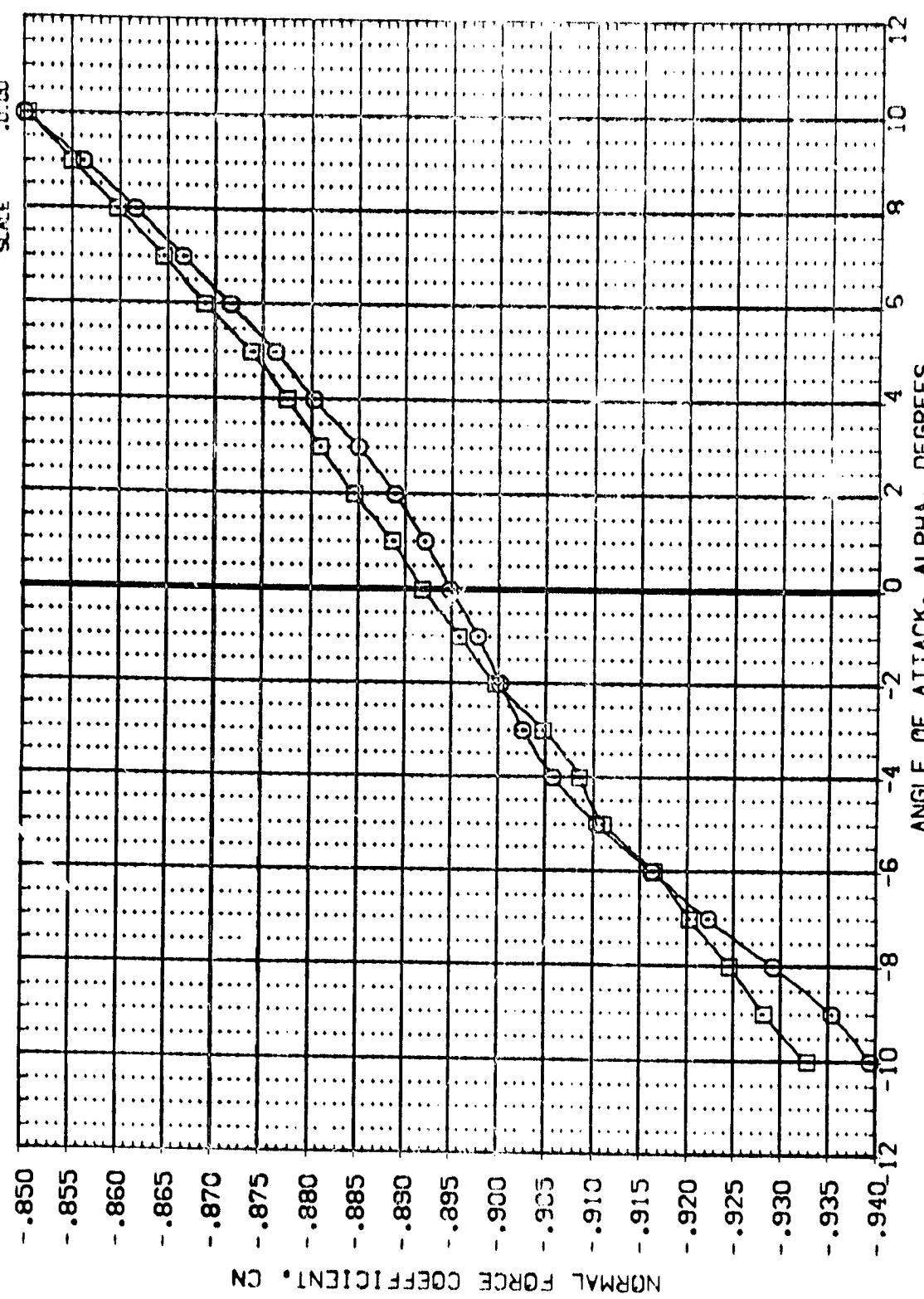


EFFECT OF ONLY ONE SRB W/0 PLUMES SEPARATION ON SRB CHARACT. (CRN/L=1.76)

CAMACH = 4.50

DATA SET NAME: CONFIGURATION DESCRIPTION  
[STL013] AEDC VA-422(IA-57). ORB/EET WRIGHT SRB  
[STL033] AEDC VA-422(IA-57). ORB/EET W/BOTH SRB

REFERENCE INFORMATION  
REF 2690 3000 SC. FT.  
LREF 1290 3000 SC. FT.  
BREF 1290 3000 SC. FT.  
XMRP 1167 0000 SC. FT.  
YMRP 400 0000 SC. FT.  
ZMRP 400 0000 SC. FT.



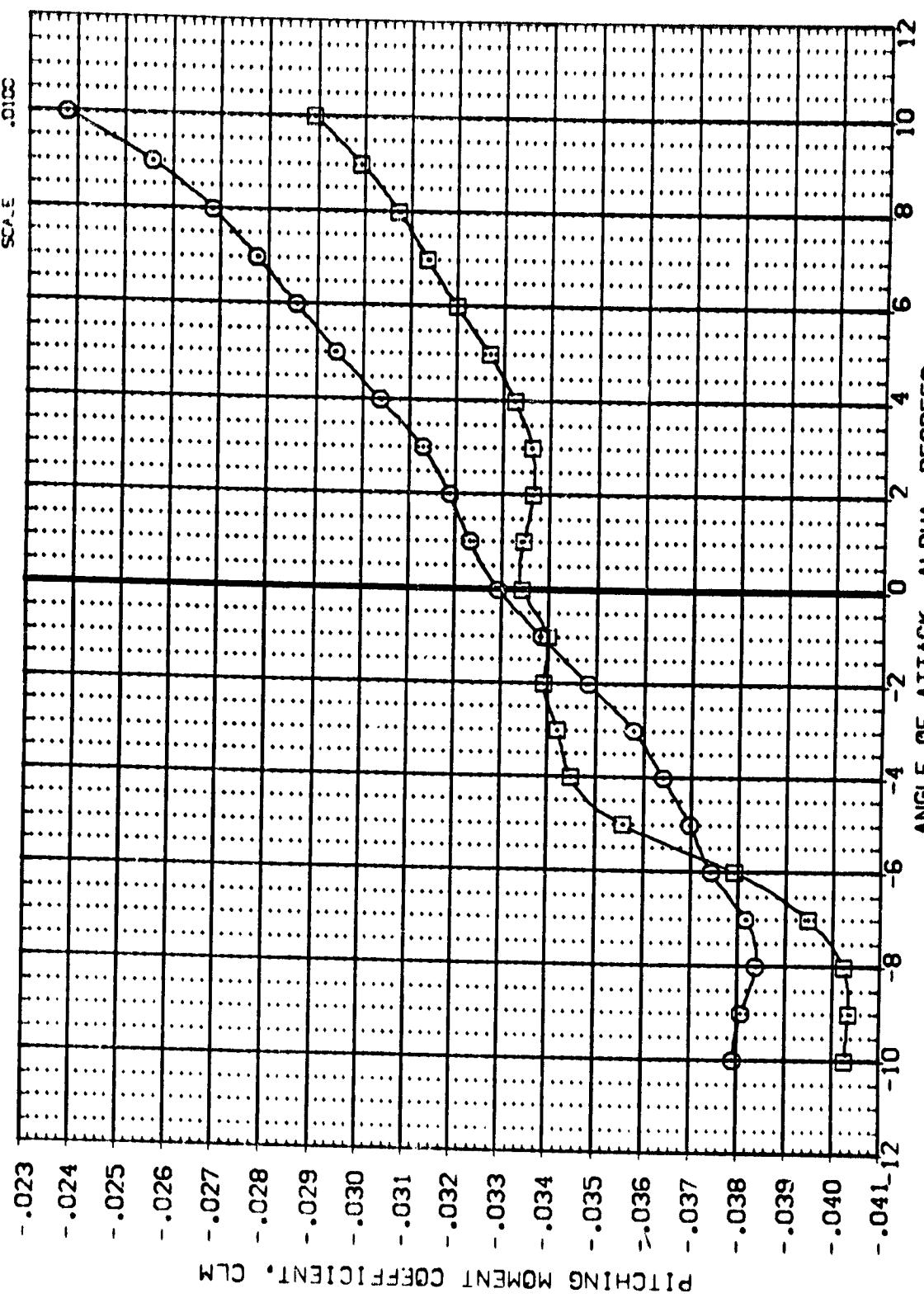
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 1, PT-JET=1500)

[A]<sub>WACH</sub> = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL013] AEDC VA-422[IA-57]. ORB/ET W/RIGHT SRB  
 [STL038] AEDC VA-422[IA-57]. ORB/ET W/BOTH SRB

REFERENCE INFORMATION  
 SREF 2850.0000 SD.FT.  
 LREF 1390.3000  
 BREF 1390.3000  
 VREF 116.0000  
 YREF 400.0000  
 ZREF .0100

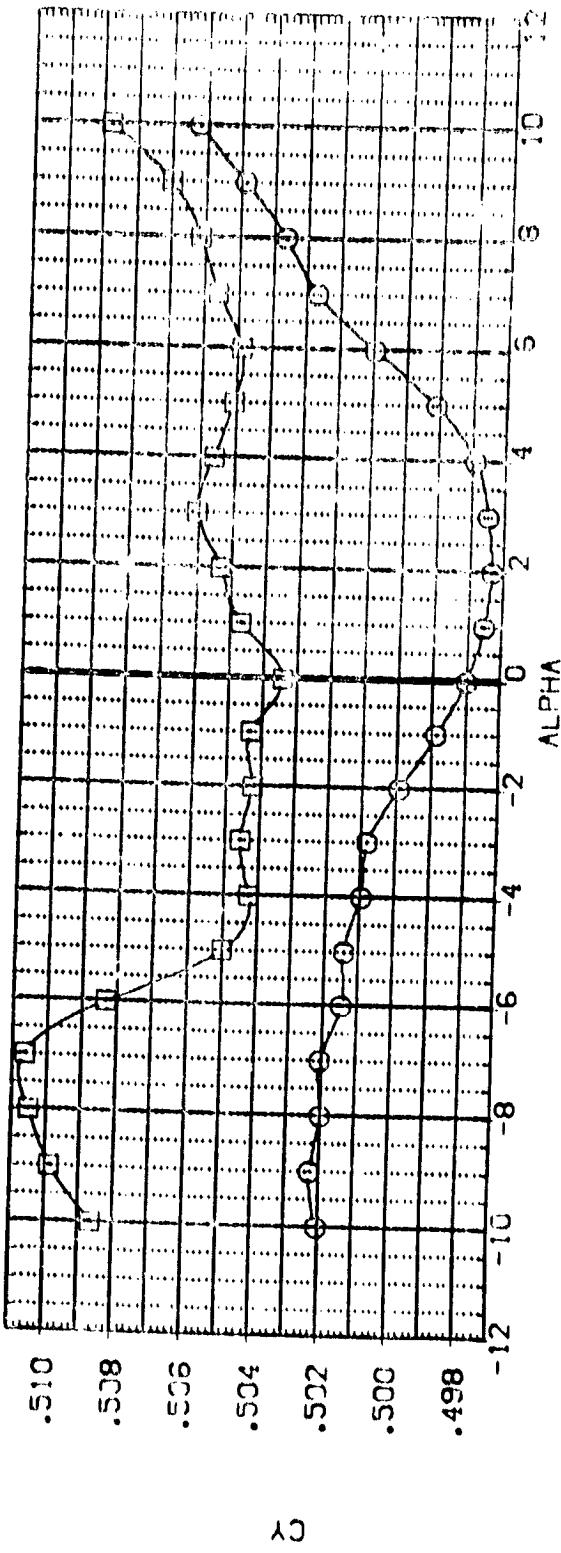
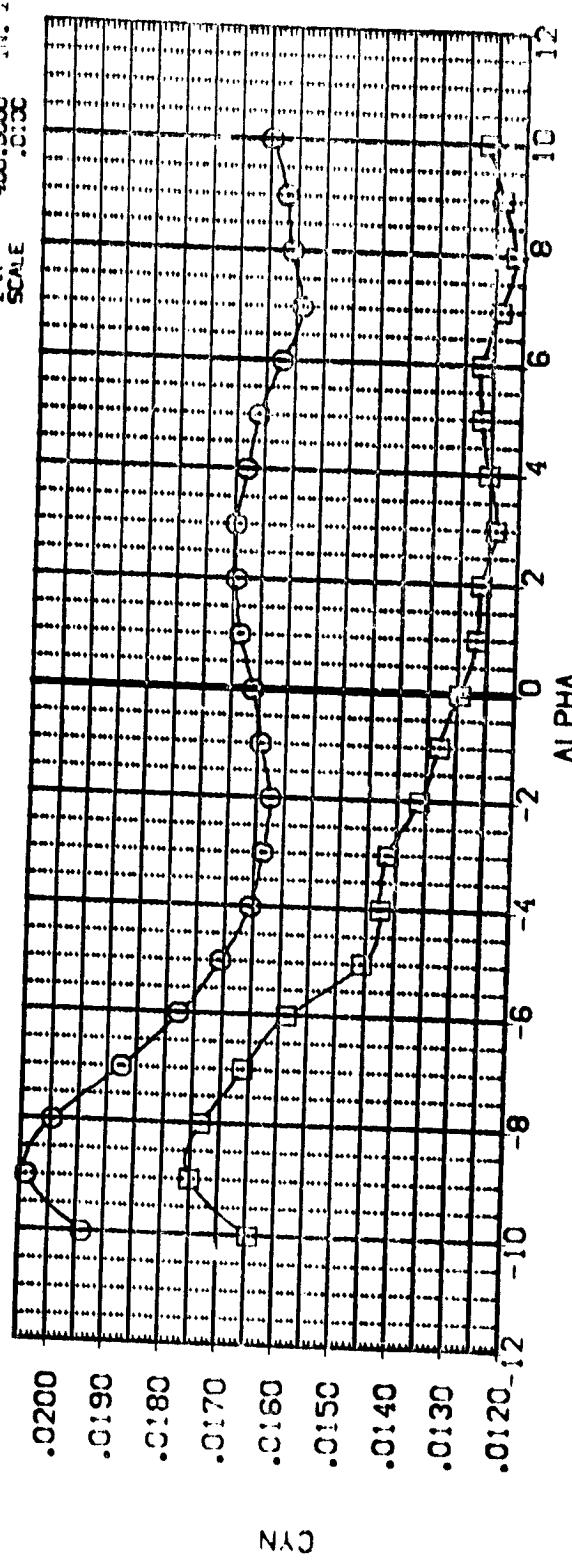


EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 1, PT-JET=1500)  
 $(A)_{vac} = 4.50$

DATA SET SYM00 CONFIGURATION DESCRIPTION

(S1-C13) AEDC VA-422(A-571) ORB/ET V/RIGHT SRB  
(S1-C38) AEDC VA-422(A-571) ORB/ET V/BOTH SRB

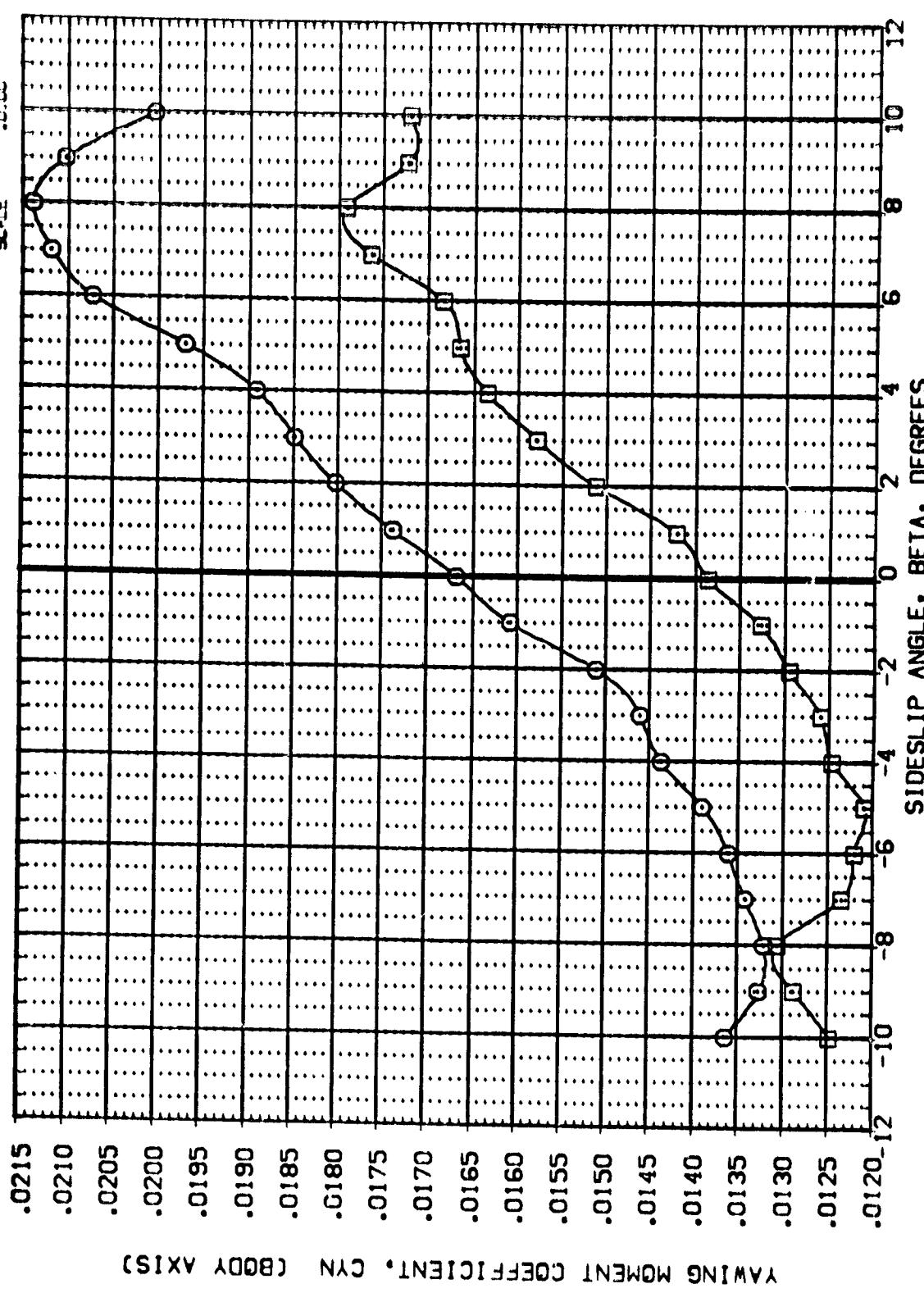
SREF 2800.000  
LREF 1250.300  
BREF 1250.300  
XREF 1.67.000  
YREF 400.000  
ZREF 0.000  
SCALE .010



EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 1, PT-ET = 1530)  
CY1 MAG. = 4.50

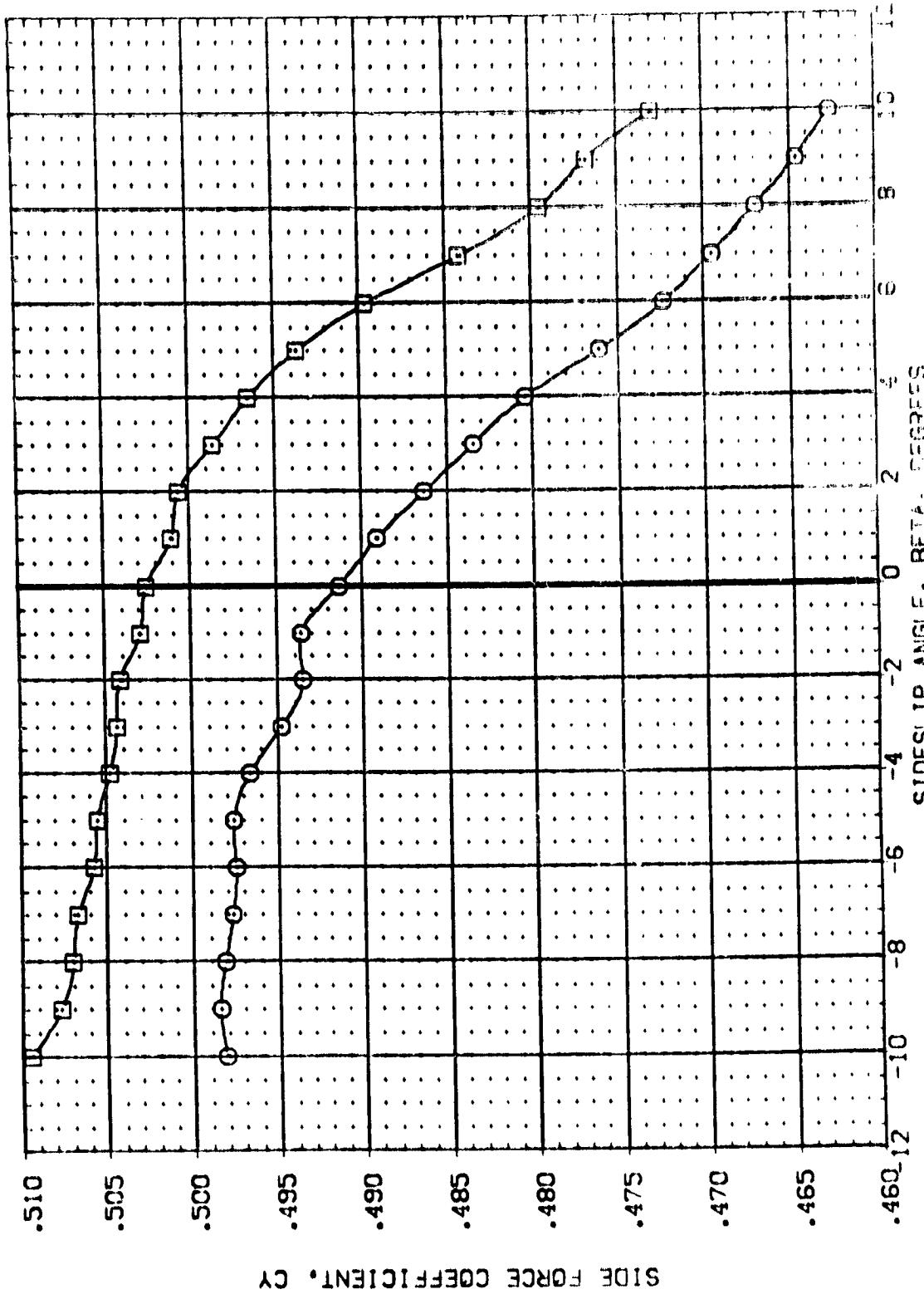
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL014] AEDC VA-4221(A-57) ORB/ET V/RIGHT SRB  
 [STL038] AEDC VA-4221(A-57) ORB/ET V/BOTH SRB

REFL PT-JET ALPHA REF 2000.0000 SQ.FT.  
 1.00 1.760 1500.0000 LREF 1500.0000 IN.  
 1.00 1.760 1500.0000 BREF 1500.0000 AN.  
 1.00 1.760 1500.0000 YREF 1500.0000 DEG.  
 1.00 1.760 1500.0000 ZREF 1500.0000 RAD.  
 SCALE 400.0000



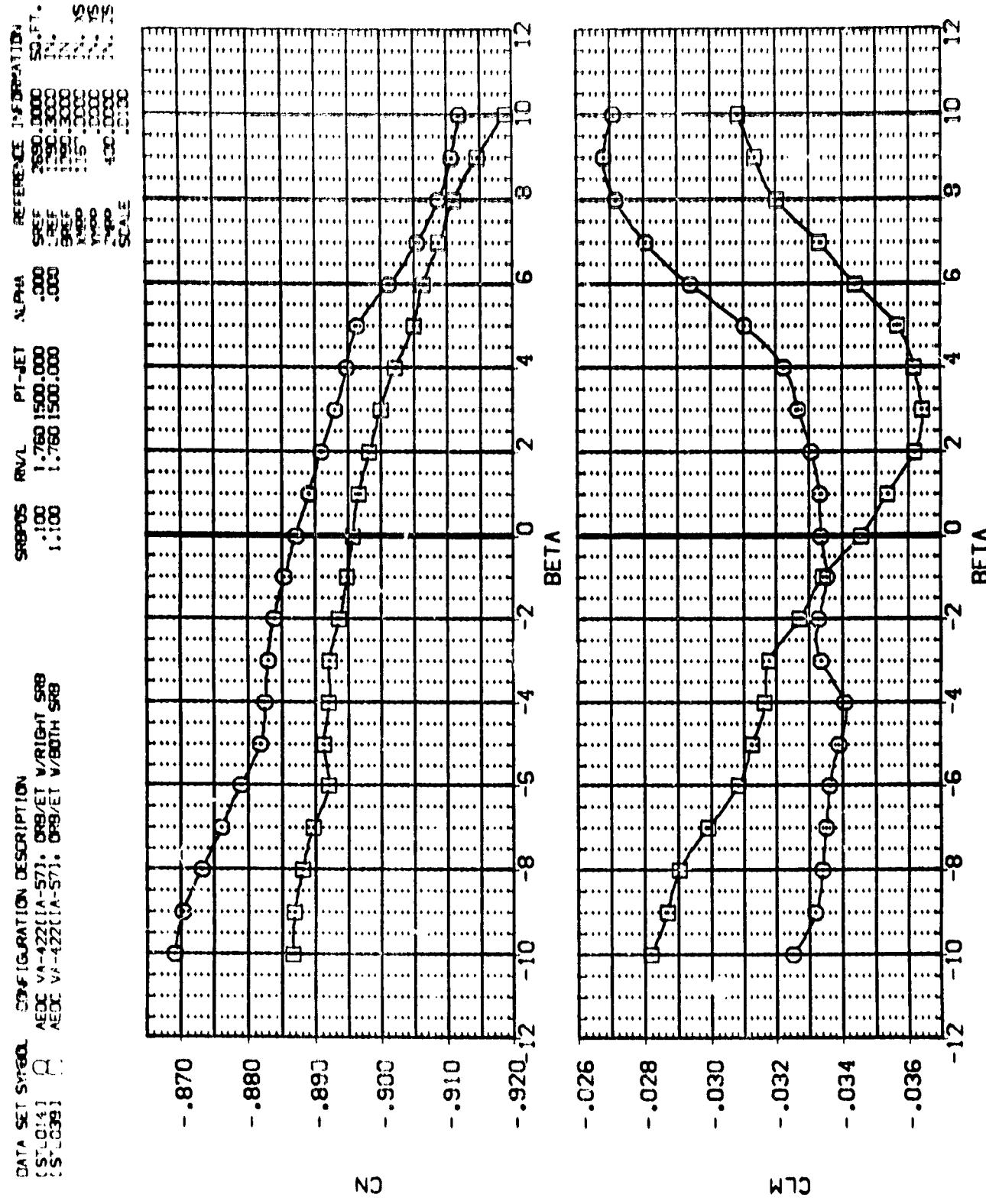
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 1, PI-JET=1500)  
 (A) MACH = 4.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
[S-04]	CD	AEDC VA-4221 [A-57]. DRB/EI V/RIGHT SRB
[S-C38]	CD	AEDC VA-4221 [A-57]. DRB/EI V/BOTH SRB
[S-04]	CD	AEDC VA-4221 [A-57]. DRB/EI V/LEFT SRB



## EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITIONS 1-5)

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (SET 014) AEDC VA-422(A-571). ORBET V/RIGHT SRB  
 (SET 038) AEDC VA-422(A-571). ORBET V/BOTH SRB



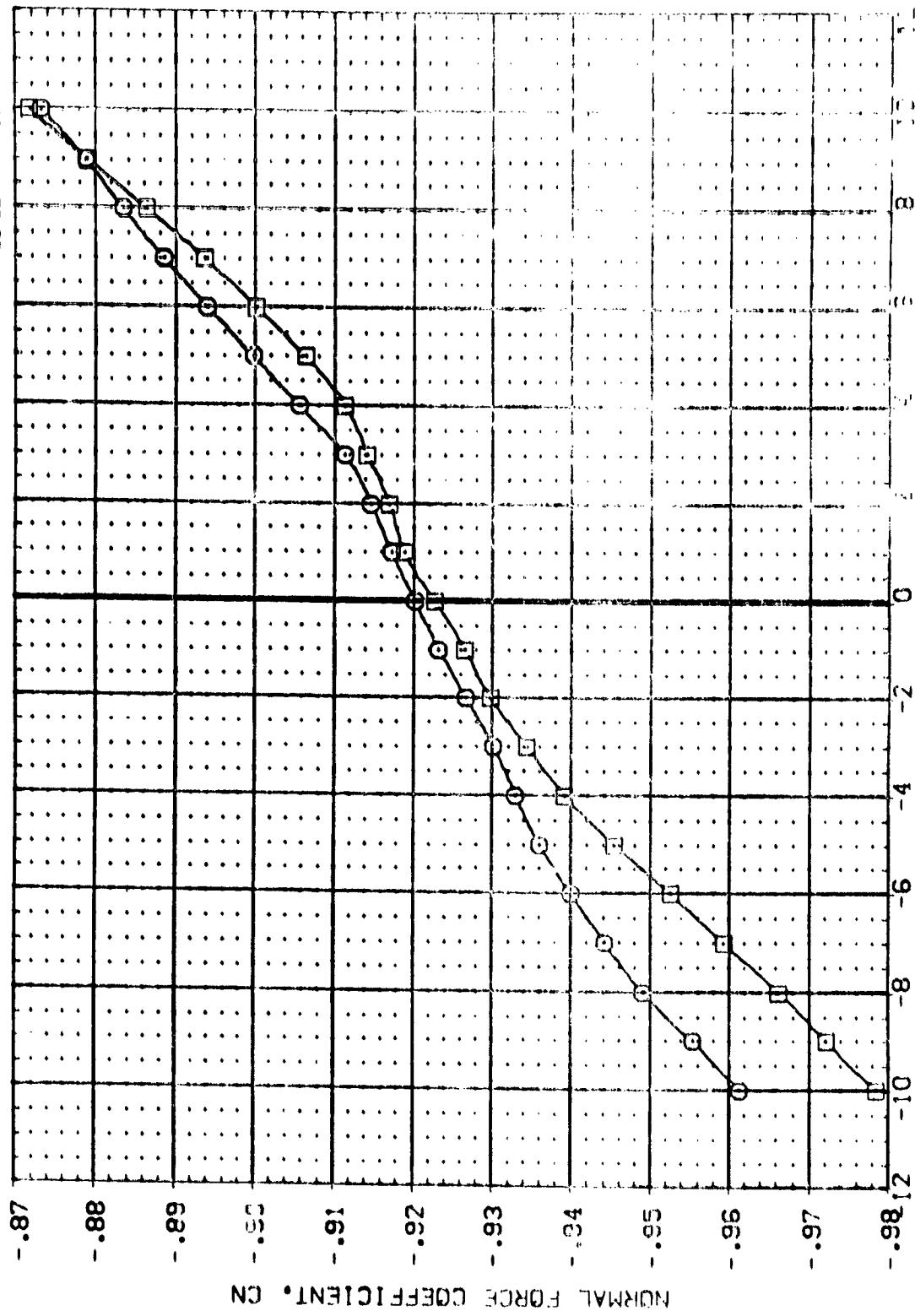
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 1, PI-JET=1500)

(APPROX) = 4.50

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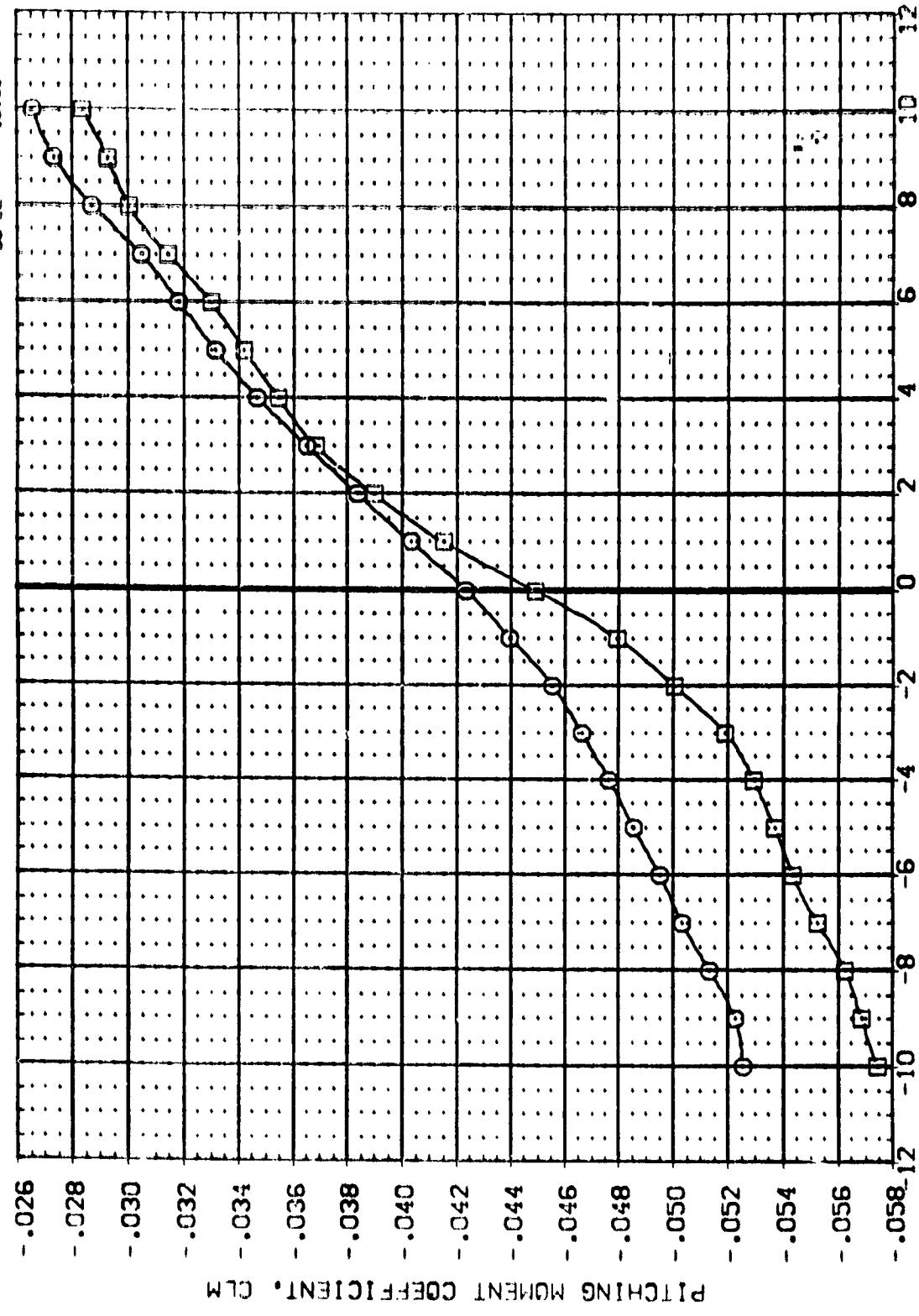
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
[STL021] AEDC VA-422([A-57]) ORBET WRIGHT S8  
[STL049] AEDC VA-422([A-57]) ORBET V/BOTH S8

SRPOS RVL PT-SET SETA REFREL 10-3 POS.  
.200 1.760 1500.000 .000 SREF 250.000 25.000  
.200 1.760 1500.000 .000 LREF 125.000 300.000  
BREF 125.000 300.000  
DREF 116.000 300.000  
TREF 400.000 200.000  
SCALE 1.000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
STL0211	AEOC VA-4222(A-571)
STL0491	AEOC VA-4222(A-571)

REFERENCE INFORMATION			
REF ID	PT-JET	BETA	SPEC
SRP05	1.760 1500.000	.000	1500.0000
2-200	1.760 1500.000	.000	1500.0000
2-200	1.760 1500.000	.000	1500.0000

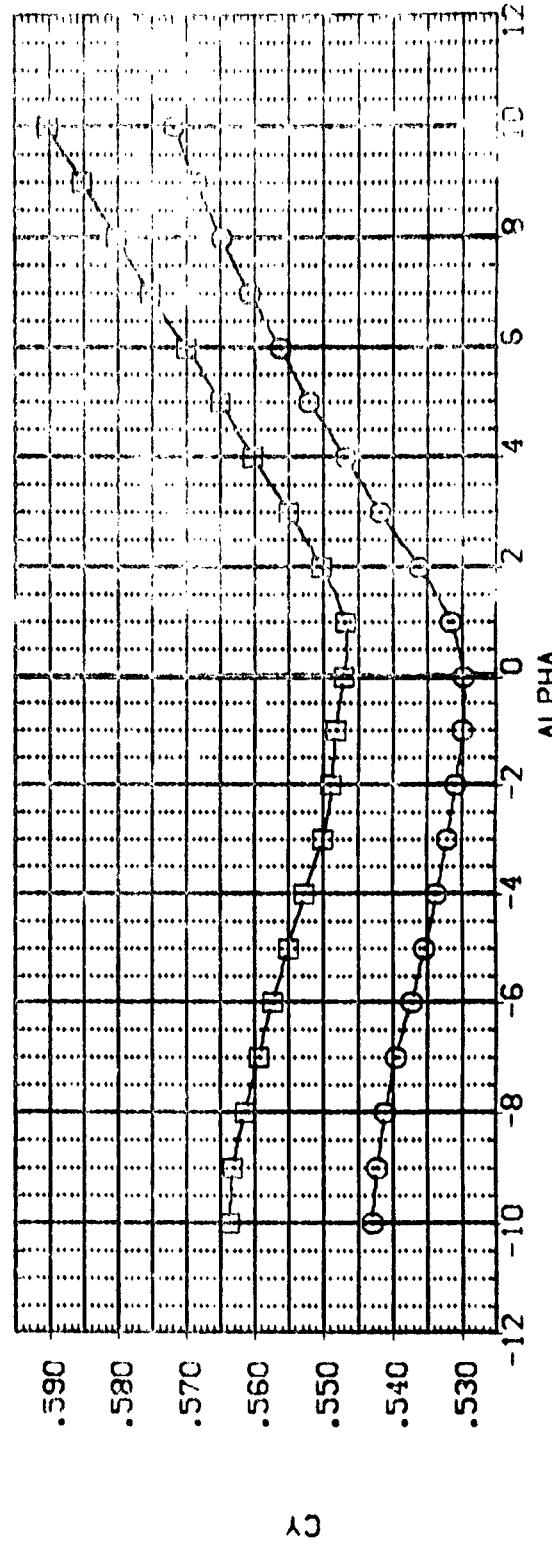
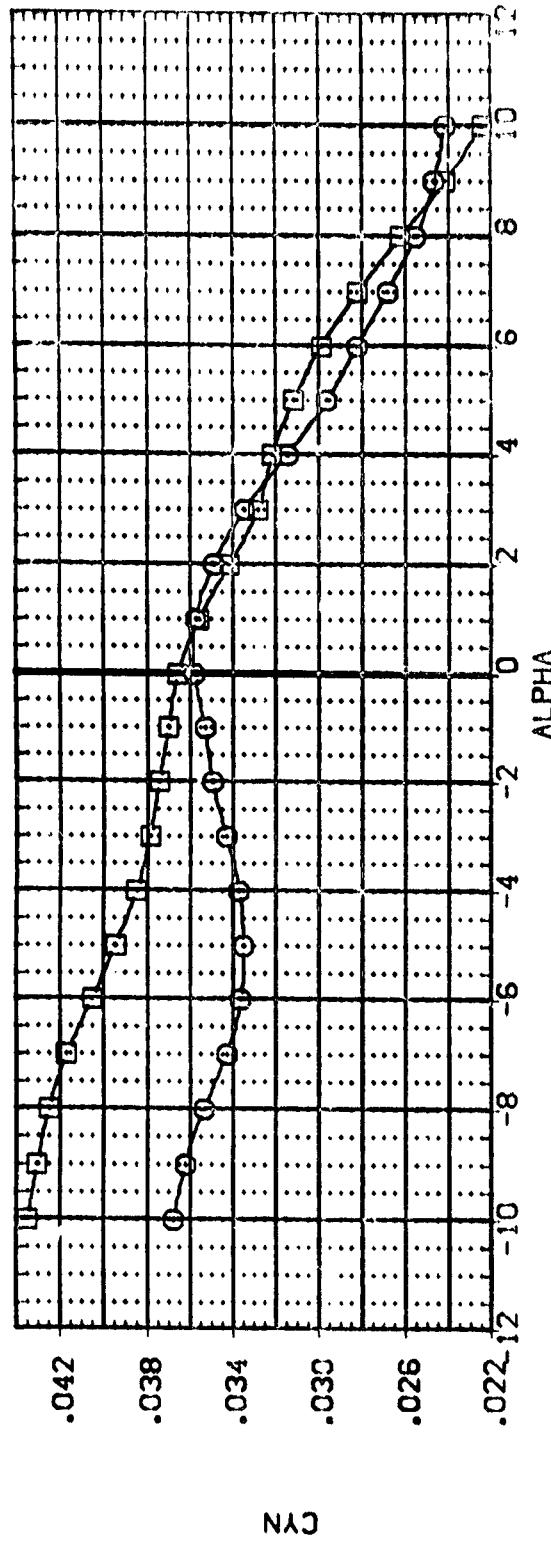


## EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 2, PT-JET=1500)

EFFECTS OF FUSION

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 {S1,021} AEDC VA-422[VA-571] GRAVET WRIGHT SRB  
 {S1,049} AEDC VA-422[VA-571] GRAVET W/BOTH SRB

SERPOS ROLL PT-JET BETA REFERENCE 1:53R-A-10.  
 2:200 1.760 1500.000 .000 SREF 1290.0000 30.0 FT.  
 2:200 1.760 1500.000 .000 LREF 1290.0000 30.0  
 SREF 1290.0000 30.0  
 XSRP 1167.0000 15.0  
 YSRP 400.0000 15.0  
 ZSRP 400.0000 15.0  
 SCALE .0102

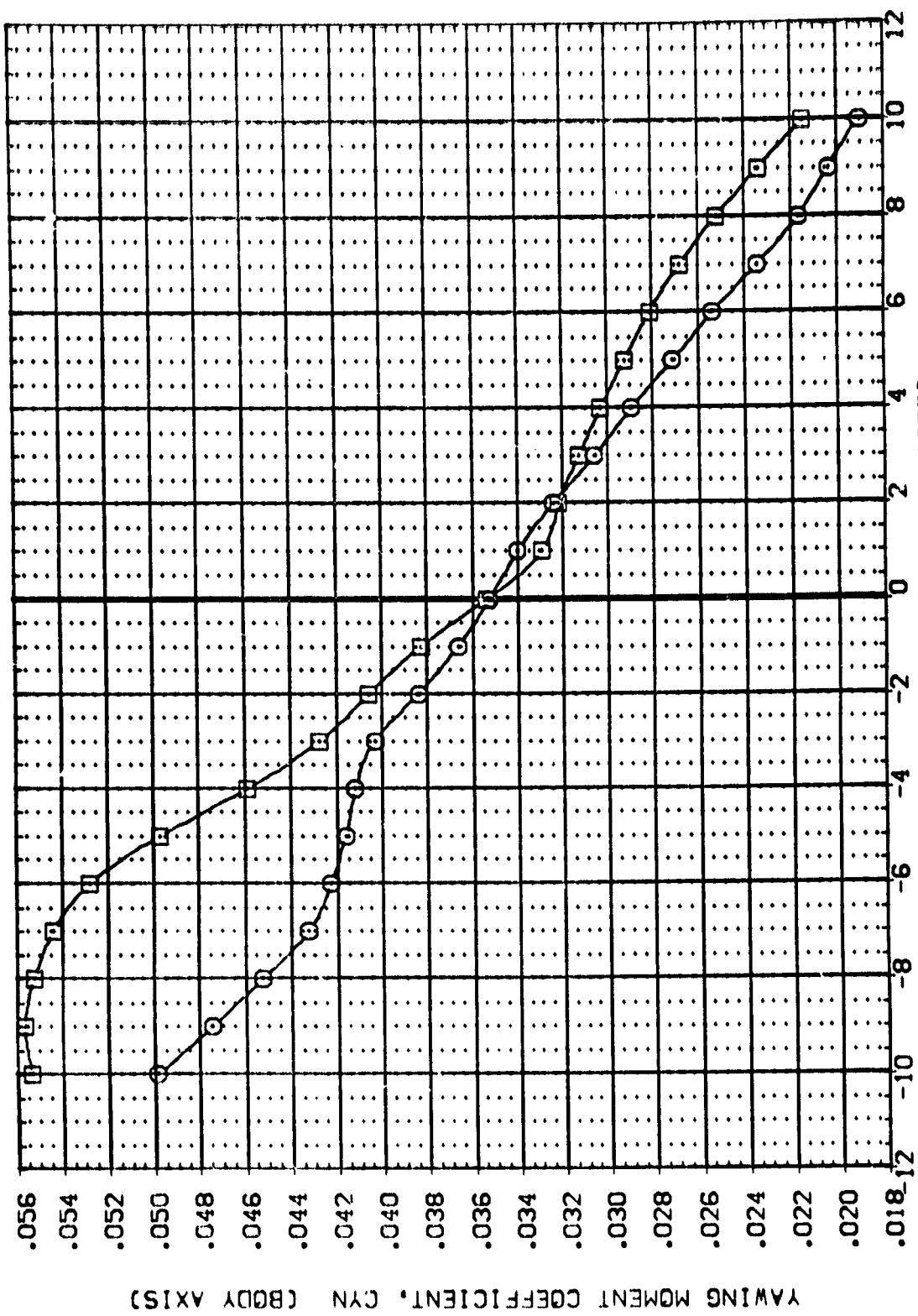


EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 2, PT-JET = 1500.000)  
 CA/MACH = 4.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL022] AEDC VA-422[IA-57]. GRB/ET WRIGHT SRB  
 [STL030] AEDC VA-422[IA-57]. GRB/ET W/BOTH SRB

REFERENCE INFORMATION  
 SRPOS RNL PT-JET ALPHA REF 2690 3000 SQ.FT.  
 2.200 1.760 1500.000 .000 LREF 1290 3000 IN.  
 2.200 1.760 1500.000 .000 BREF 1290 3000 IN.  
 X4PP 1.16 .00003 15  
 Y4PP .430 .00003 15  
 Z4PP .430 .00003 15  
 SCALE .250

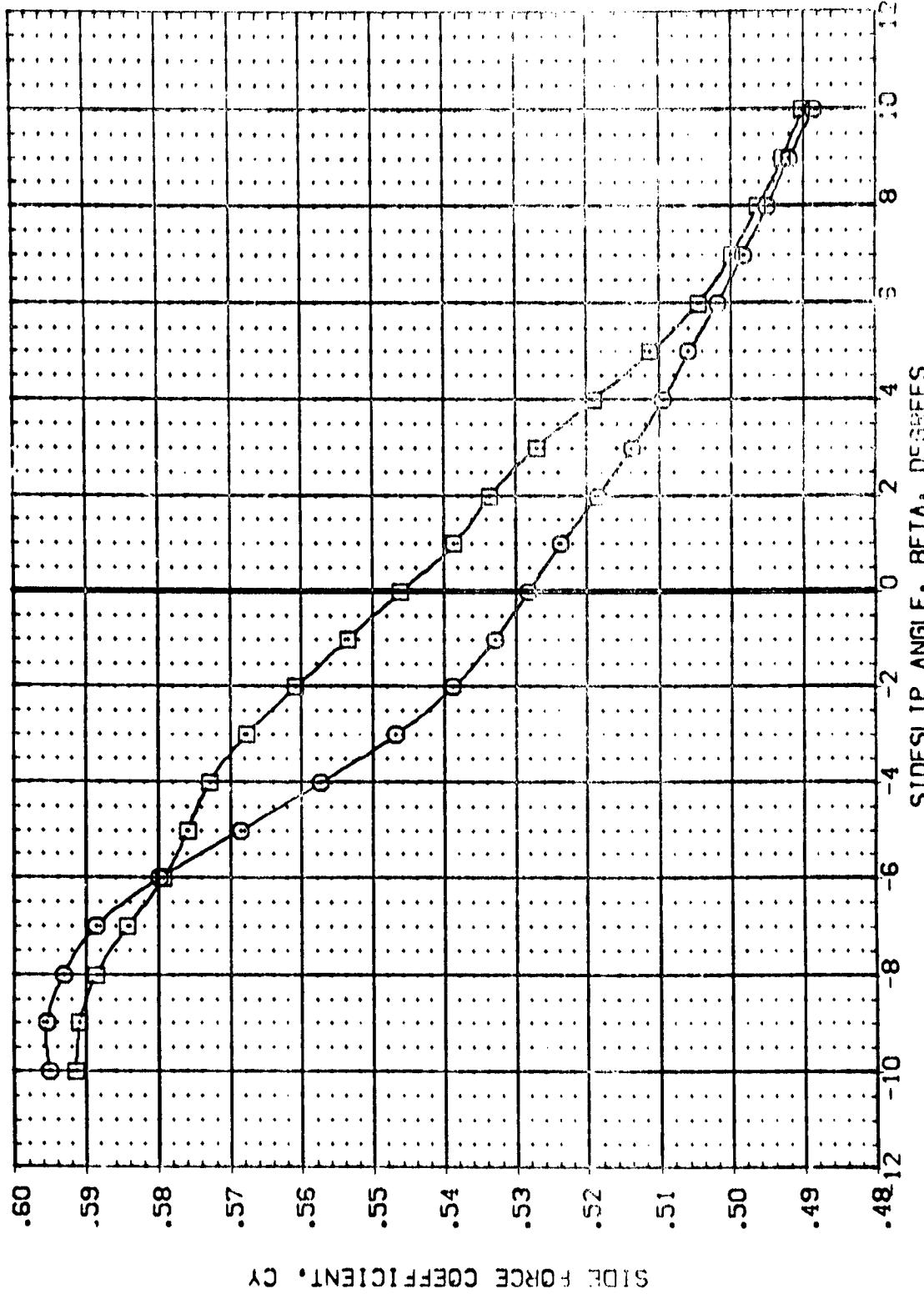


EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 2, PT-JET=1500)

(AJMACH = 4.50

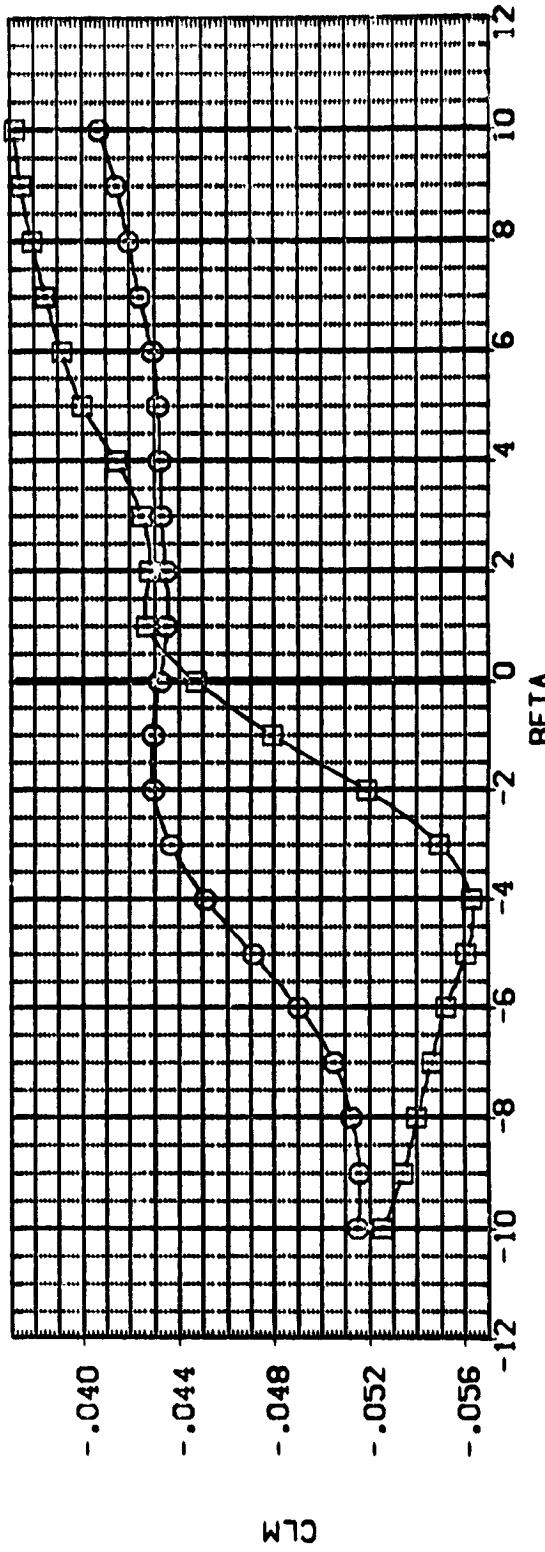
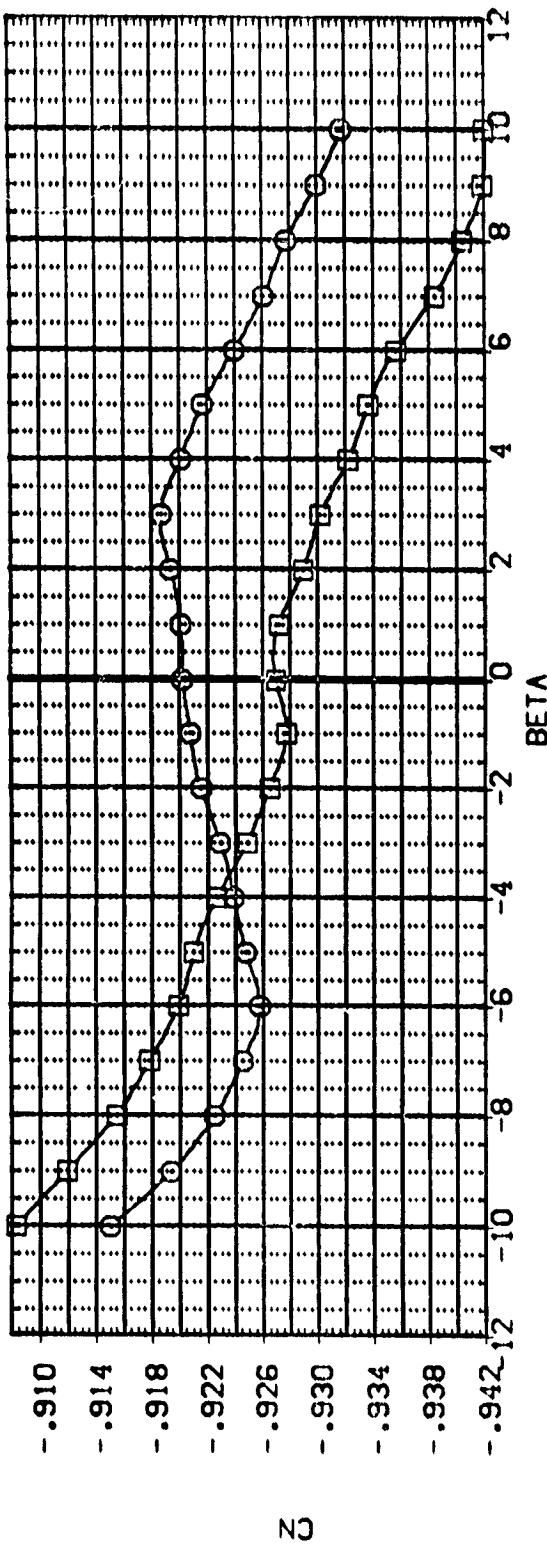
DATA SET SYMBOL: CONFIGURATION DESCRIPTION  
 [SR-022] C AEDC VA-4221(A-57). GRB/EI WRIGHT SRB  
 [SR-050] C AEDC VA-4221(A-57). GRB/EI W/BOTH SRB

SRBPOS	RNUV	PT-JET	ALPHA	REFERENCE IN DEGREES
2:200	1.760	1500.000	.000	360.000 SC.FT.
2:200	1.760	1500.000	.000	360.000
				LREF
				BREF
				120.000
				115.000
				110.000
				105.000
				100.000
				95.000
				90.000
				85.000
				80.000
				75.000
				70.000
				65.000
				60.000
				55.000
				50.000
				45.000
				40.000
				35.000
				30.000
				25.000
				20.000
				15.000
				10.000
				5.000
				0.000
				-5.000
				-10.000
				-15.000
				-20.000
				-25.000
				-30.000
				-35.000
				-40.000
				-45.000
				-50.000
				-55.000
				-60.000



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 STL022 AEDC VA-422(A-57) ORB/ET WRIGHT SRB  
 STL050 AEDC VA-422(A-57) ORB/ET W/BOTH SRB

SRPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 2.200 1.760 1500 .000 SREF 2680.0000 SD.FT.  
 2.200 1.760 1500 .000 LREF 1290.3000  
 BREF 1290.3000  
 XSRP 1167.0000 N. 15  
 YSRP .0000 N. 15  
 ZSRP 420.0000 N. 75  
 SCALE .5120



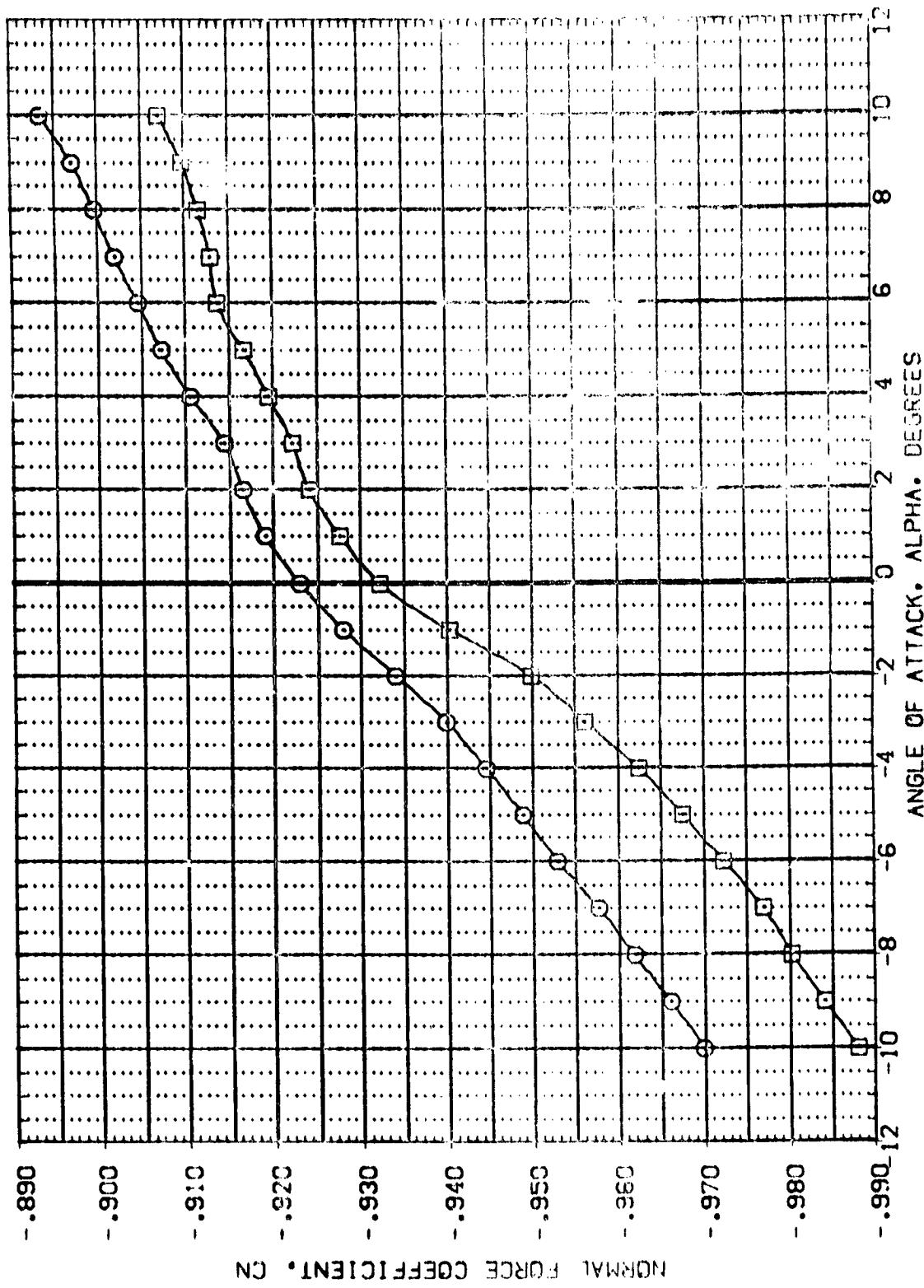
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 2, PT-JET=1500)

C<sub>A</sub>MACH = 4.50

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DATA SET SUMMARY CONFIGURATION DESCRIPTION  
[STL029] AEDC VA-4222(IA-571) ORBET V/WRIGHT SRB  
[STL060] AEDC VA-4222(IA-571) ORBET V/BOTH SRB

REFERENCE INFORMATION  
SPOS RVAL PT-JET BETA  
3.300 1.760 1500.00 .000  
3.300 1.760 1500.00 .000  
SCALE

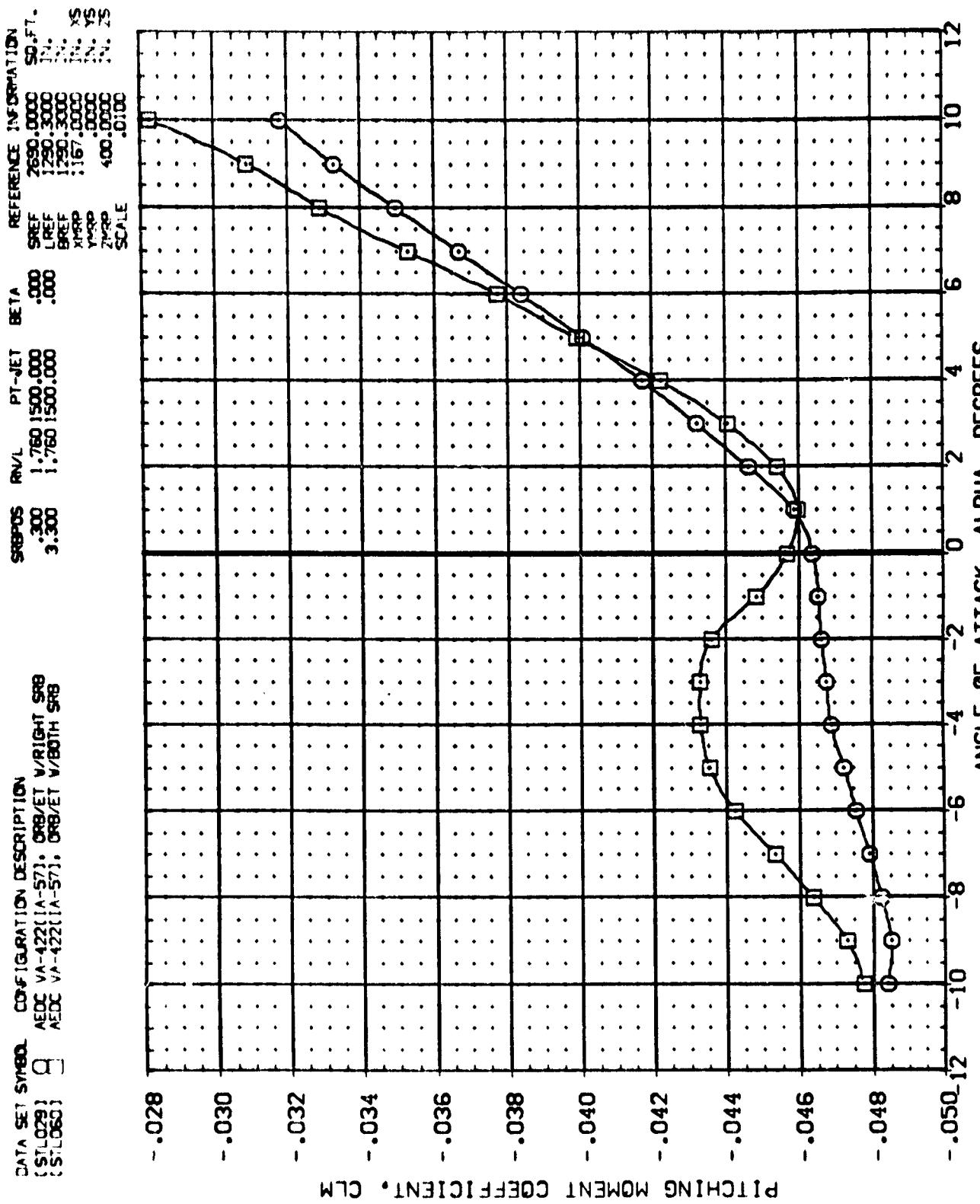


EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, PT-JET=1500)

CAPMACH = 4.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ST.029) AEDC VA-422([A-57]), ORBIT WRIGHT SRB  
 (ST.060) AEDC VA-422([A-57]), ORBIT W/BOTH SRB



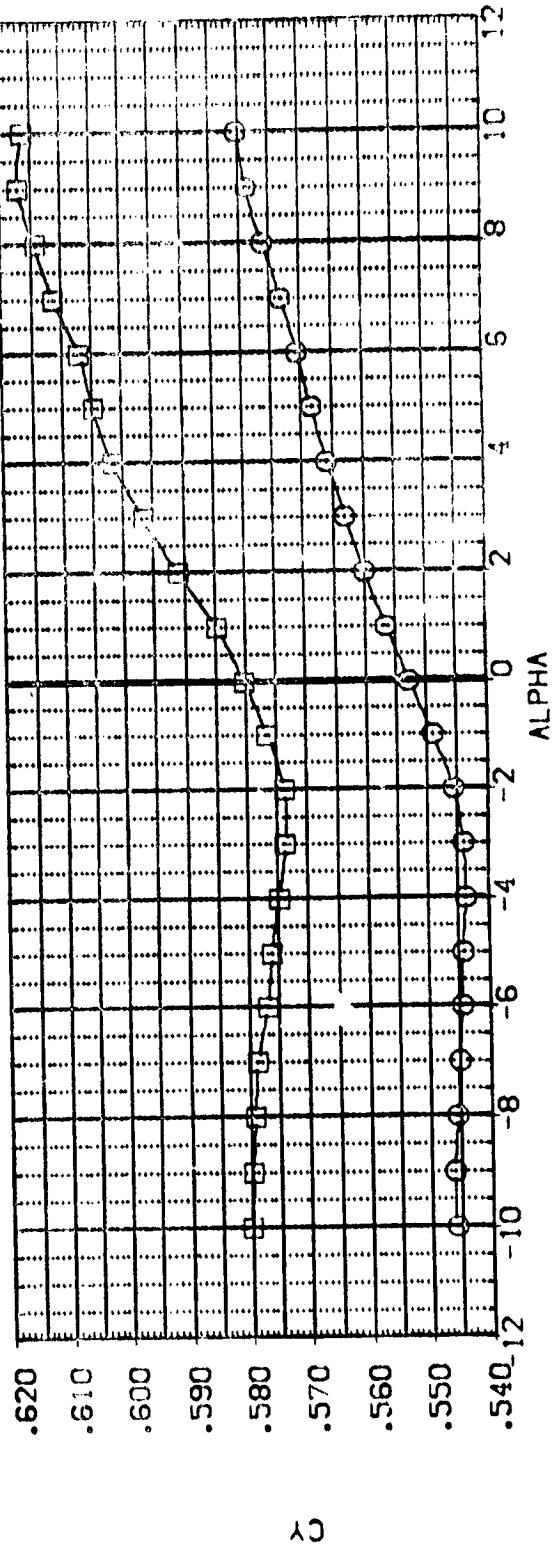
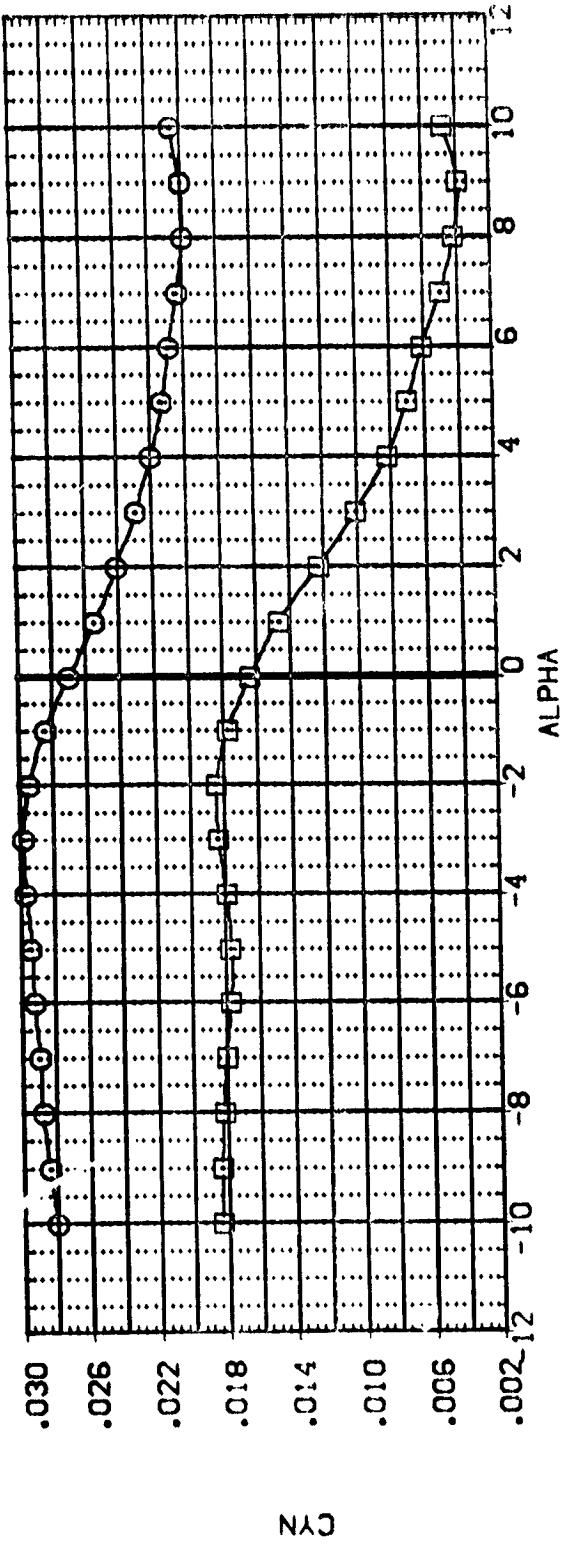
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, PT-JET=1500)

(A) MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL029] A TC VA-422[IA-57]. ORB/ET V/RIGHT SRB  
 [STL060] AE VA-422[IA-57]. ORB/ET V/BOTH SRB

SRPOS RNL PI-JET BETA REFERENCE INFORMATION  
 3:300 1.760 1500.000 .000 SREF 2690.0000 SQ.F.  
 3:300 1.760 1500.000 .000 LREF 1290.3000 IN.  
 BREF 1290.3000 IN.  
 XHOP 1167.0000 IN.  
 YHOP 1167.0000 IN.  
 ZHOP 400.0000 IN.  
 SCALE .0100



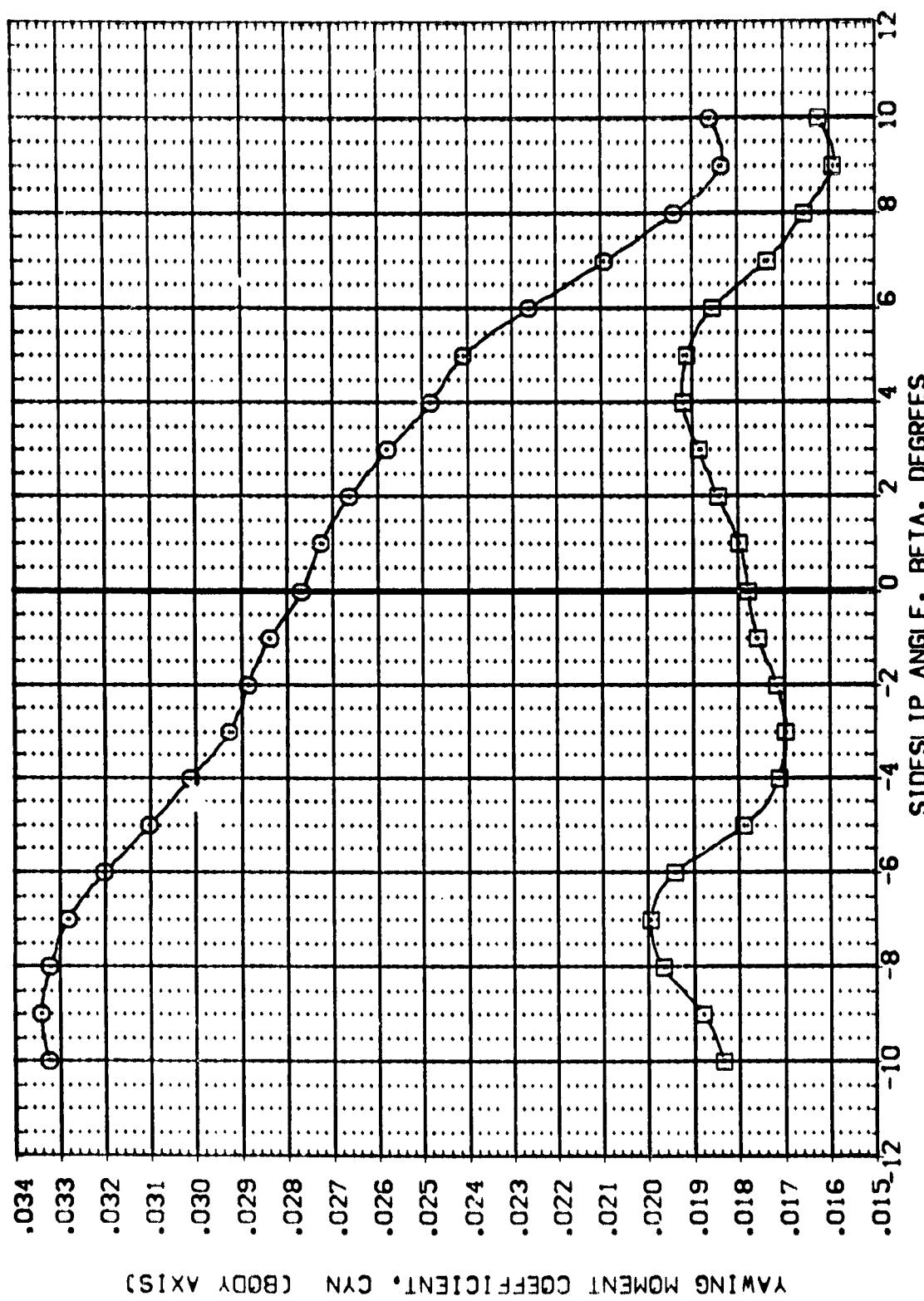
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, ET-ET=1500).

CAJ MACH 4.50

DATE 288

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL030] AEDC VA-422(A-57). ORB/ET V/RIGHT SRB  
 [STL036] AEDC VA-422(A-57). ORB/ET V/BOTH SRB

REFERENCE INFORMATION  
 SRPOS RNL. PT-JET ALPHA SREF 7650.0000 SQ.FT.  
 3.300 1.750 1500.000 .000 LREF 1750.3000  
 1.300 1.750 1500.000 .000 BREF 1150.3000  
 XRPD 1167.0000 YRPD 100.0000  
 TWRP .0100 SCALE .0100

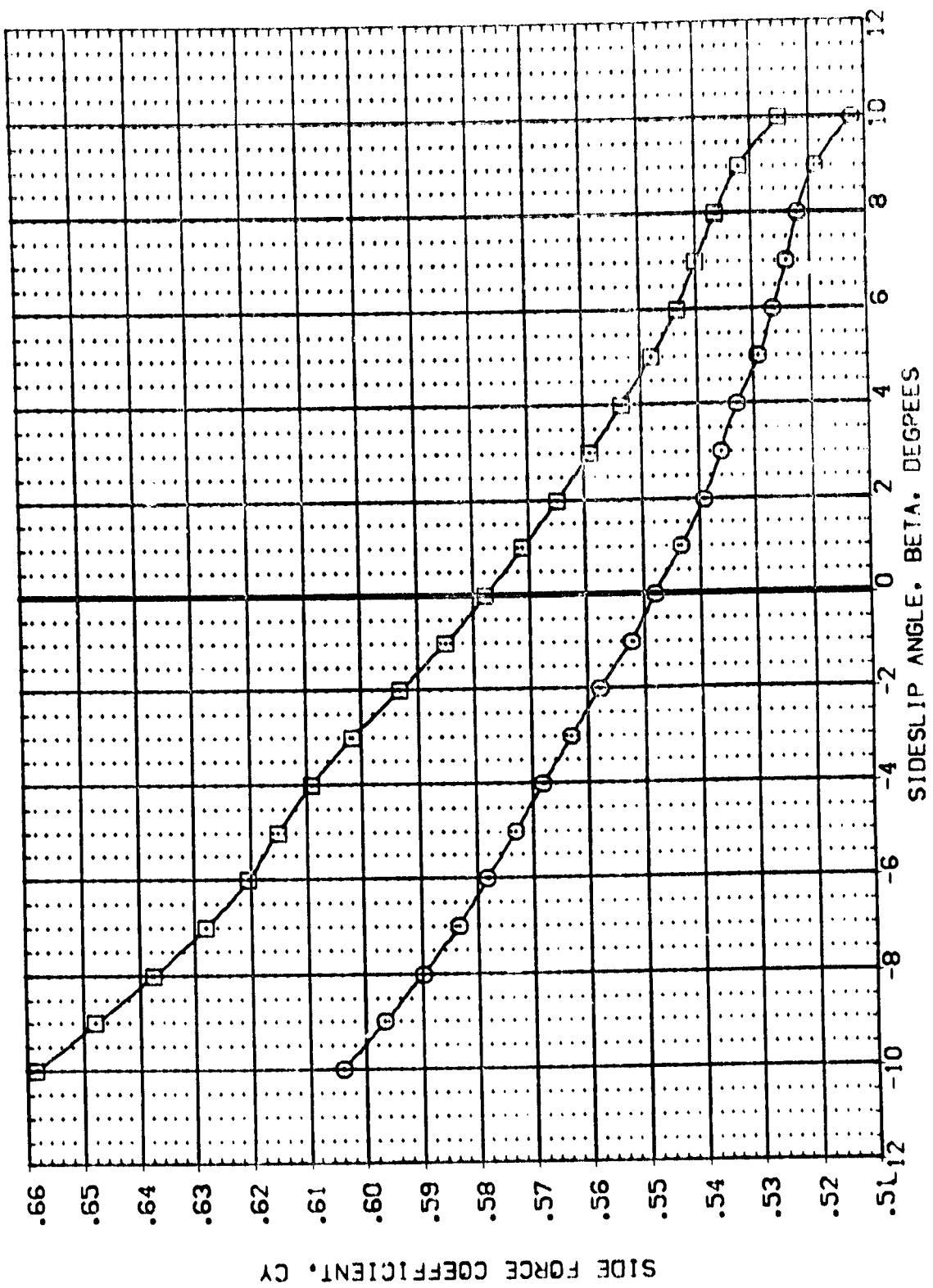


EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, PT-JET=1500)  
 CA/MACH = 4.50

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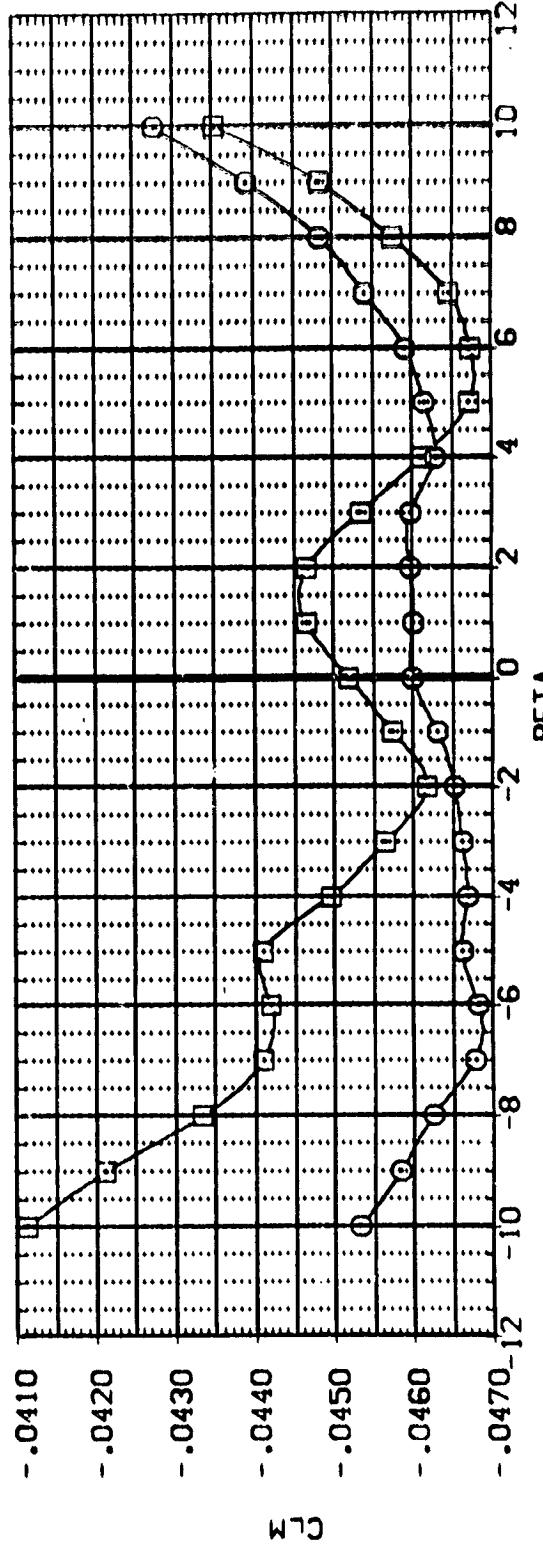
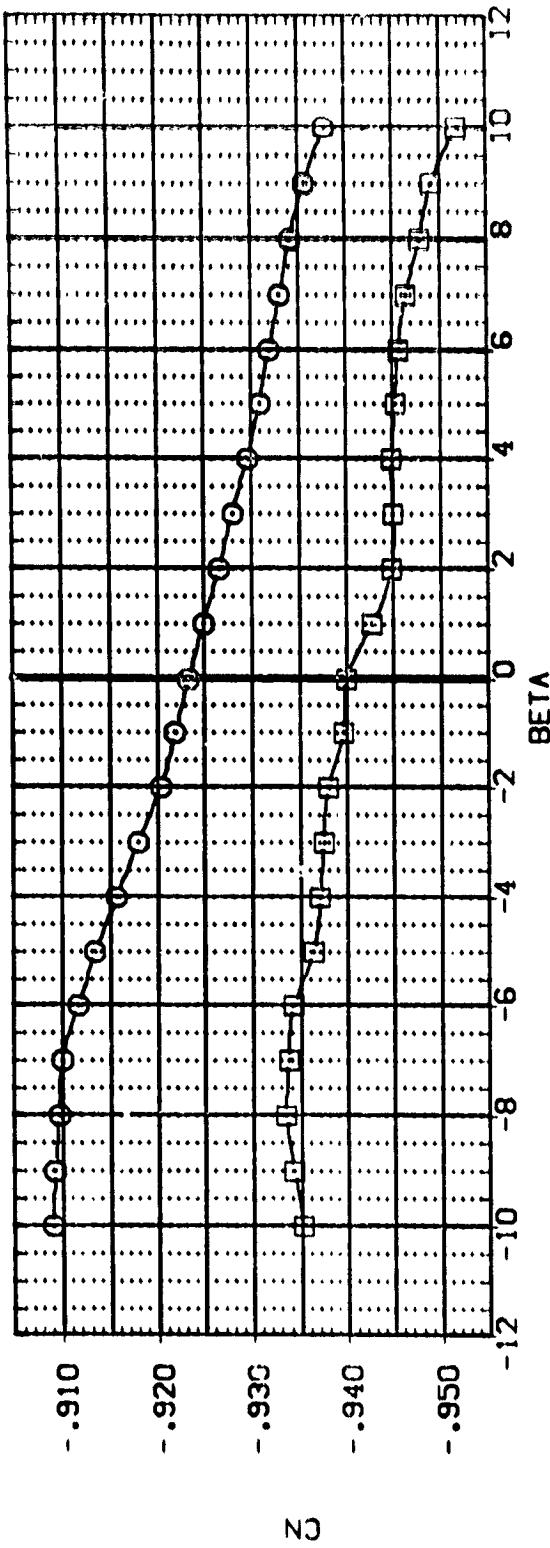
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[STL030]	A/E/C VA-422([A-57]). ORBET V/RIGHT S/R
[STL051]	A/E/C VA-422([A-57]). ORBET V/BOTH S/R
[STL056]	A/E/C VA-422([A-57]). ORBET V/BOTH S/R

SRPDS	PNVL	PT-JET	ALPHA	REF	REF
3:300	1.760	1500.000	.000	SREF	2500.0000
3:300	1.760	1500.000	.000	LREF	2500.0000



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL030] AEDC VA-422(A-57) ORB/ET V/RIGHT SRB  
 [STL061] AEDC VA-422(A-57) ORB/ET V/BOTH SRB

SRBPOS ROLL PT-JET ALPHA REFERENCE INFORMATION  
 .300 1.760 1500.000 .000 SREF 2690.0000 SO.FT.  
 3.300 1.760 1500.000 .000 SREF 1290.3000 1K  
 1.300 1.760 1500.000 .000 SREF 1390.3000 1K  
 1.500 1.760 1500.000 .000 SREF 1570.0000 1K  
 4.000 1.760 1500.000 .000 SREF 4000.0000 1K  
 SCALE .0125



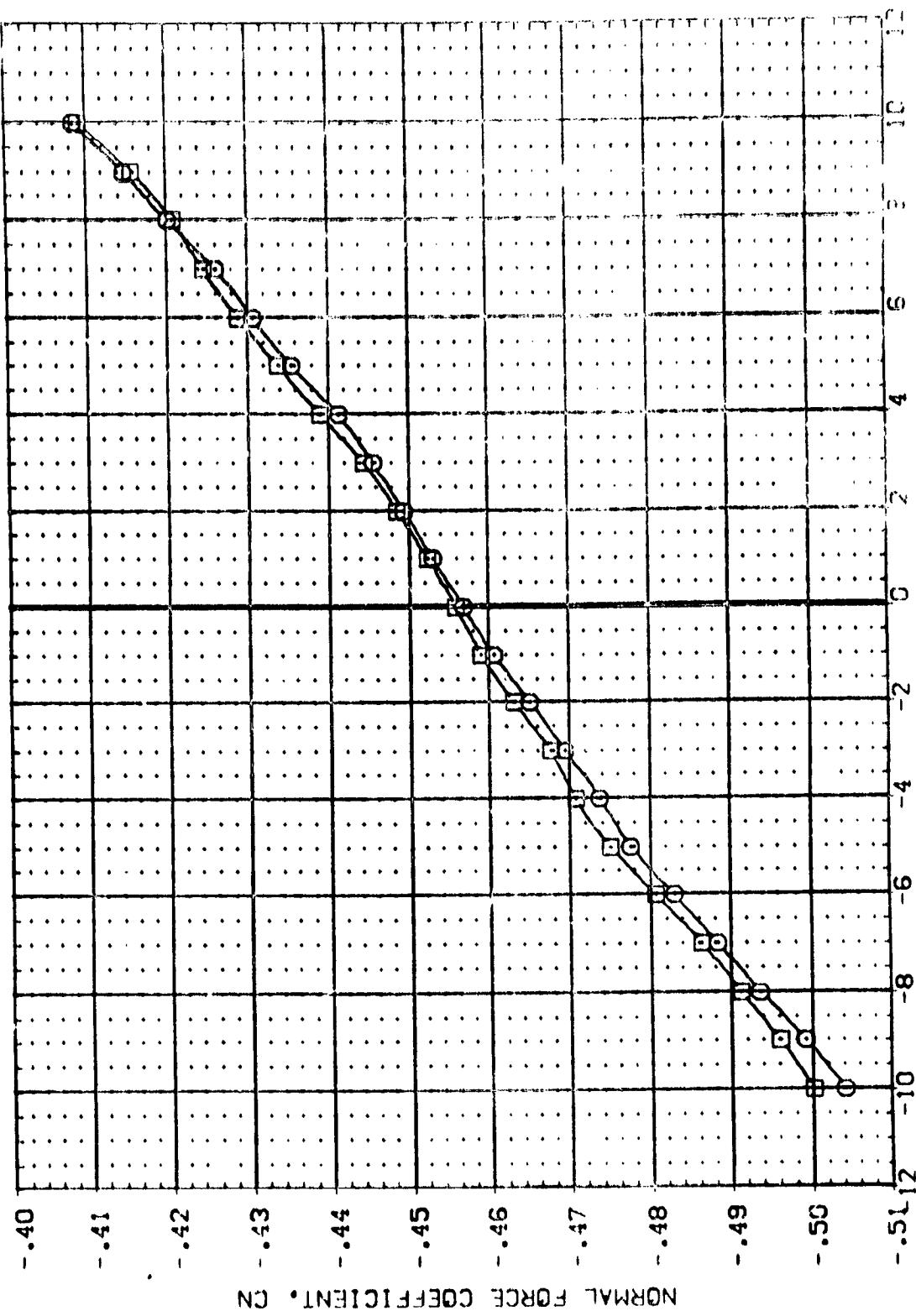
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, PT-JET=1500)

$$(\Delta)_{MACH} = 4.50$$

PAGE 29:

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
[ST-011] AEDC VA-422/IA-571. SRB/ET W/RIGHT SRB  
[ST-036] AEDC VA-422/IA-571. SRB/ET W/BOTH SRB

REFERENCE INFORMATION  
REF 3800.2000  
REF 3800.3000  
REF 3800.4000  
WIND 1.67.0000  
WIND 1.87.0000  
SCALE .5000

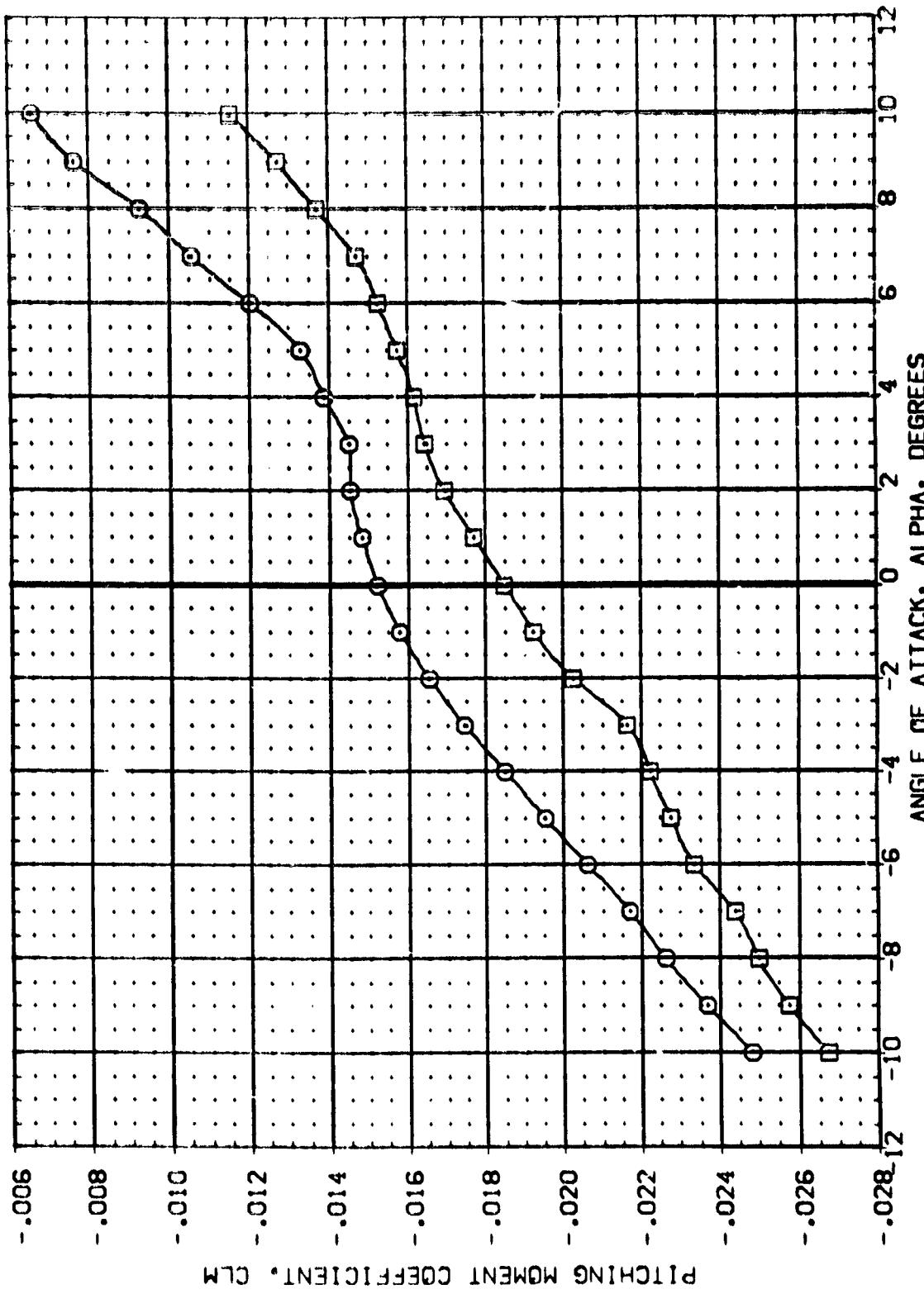


EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 1, PT-ET = 750)  
(A) MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 ST-C(1) AEDC VA-422[(A-57)] SRB/ET WRIGHT SRB  
 ST-C(36) AEDC VA-122[(A-57)] SRB/ET W/80TH SRB

REFPOS ROLL PT-JET BETA REFERENCE INFORMATION  
 1.00 1.750 750.000 .000 SRF  
 1.100 1.750 750.000 .000 SRF  
 1.200 1.750 750.000 .000 SRF  
 1.300 1.750 750.000 .000 SRF  
 1.400 1.750 750.000 .000 SRF  
 1.500 1.750 750.000 .000 SRF  
 1.600 1.750 750.000 .000 SRF  
 1.700 1.750 750.000 .000 SRF  
 1.800 1.750 750.000 .000 SRF  
 1.900 1.750 750.000 .000 SRF  
 2.000 1.750 750.000 .000 SRF  
 SCALE

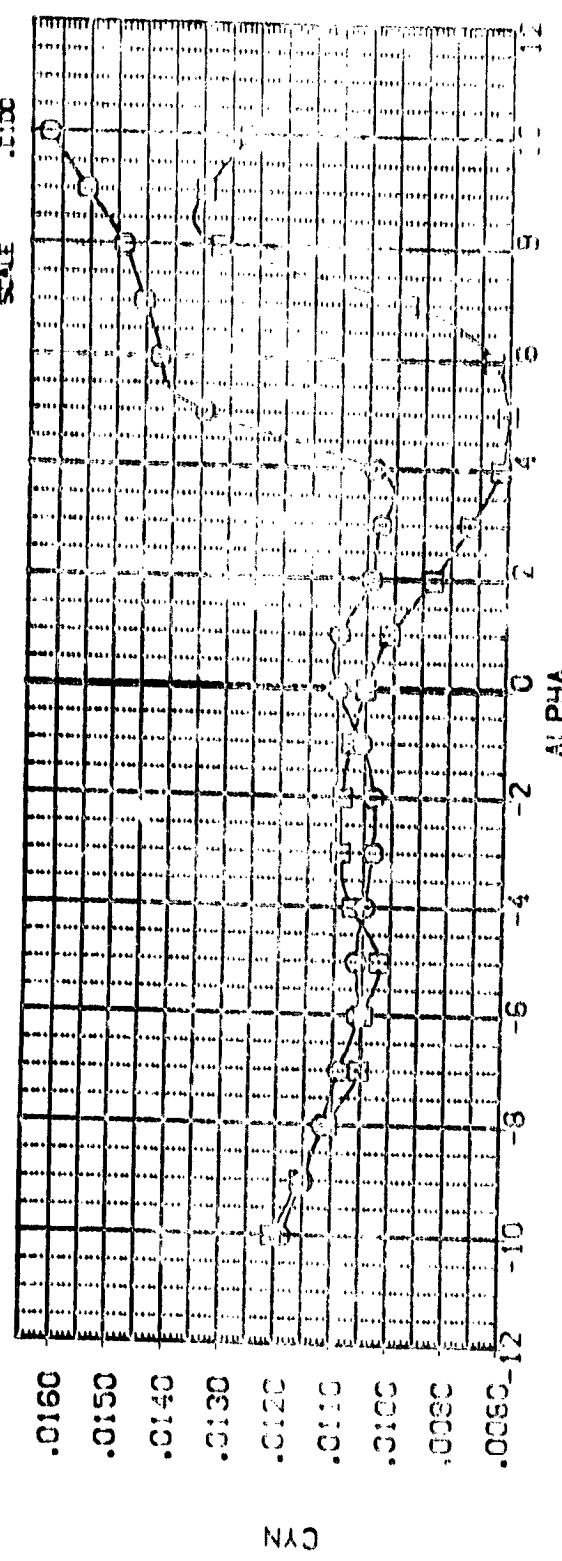


PITCHING MOMENT COEFFICIENT, CLM

EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 1, PT-JET=750)

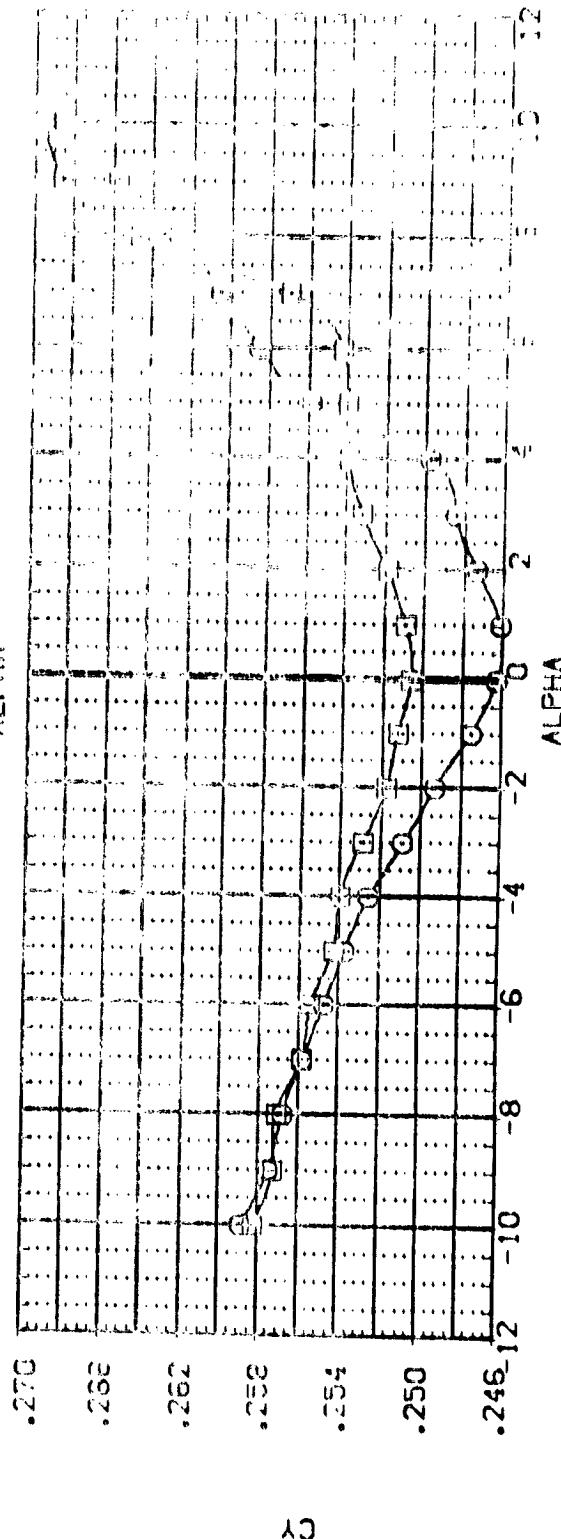
(A)MACH = 4.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[ST-C01]	AEDC VA-4221[A-571]. GSE/ET WEIGHT SWS
[ST-C36]	AEDC VA-4221[A-571]. GSE/ET WEIGHT SWS

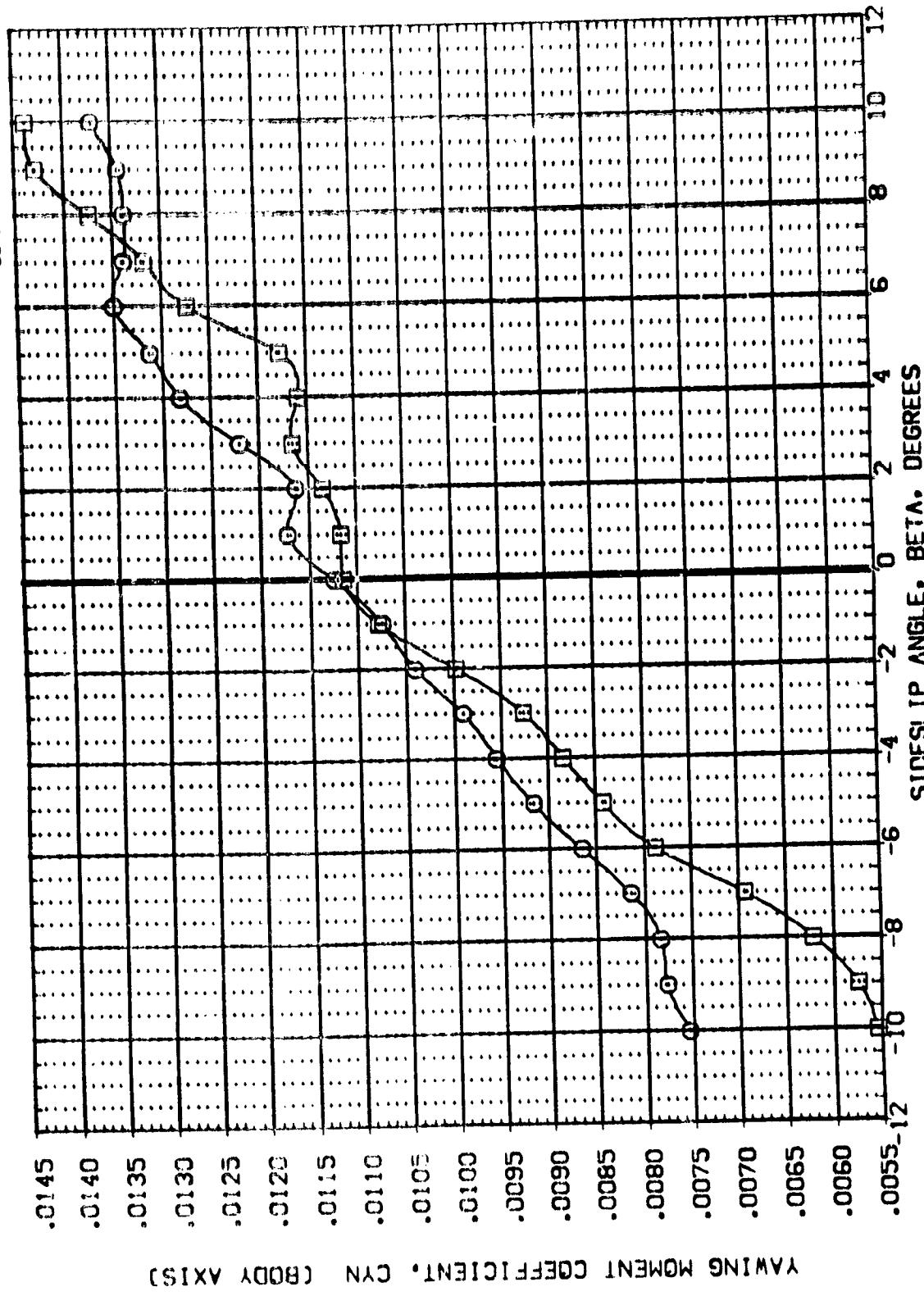


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DATA SET NUMBER CONFIGURATION DESCRIPTION  
 [ST-012] O AEDC VA-42211A-571. GRB/ET WRIGHT SRB  
 [ST-037] □ AEDC VA-42211A-571. GRB/ET W/60TH SRB



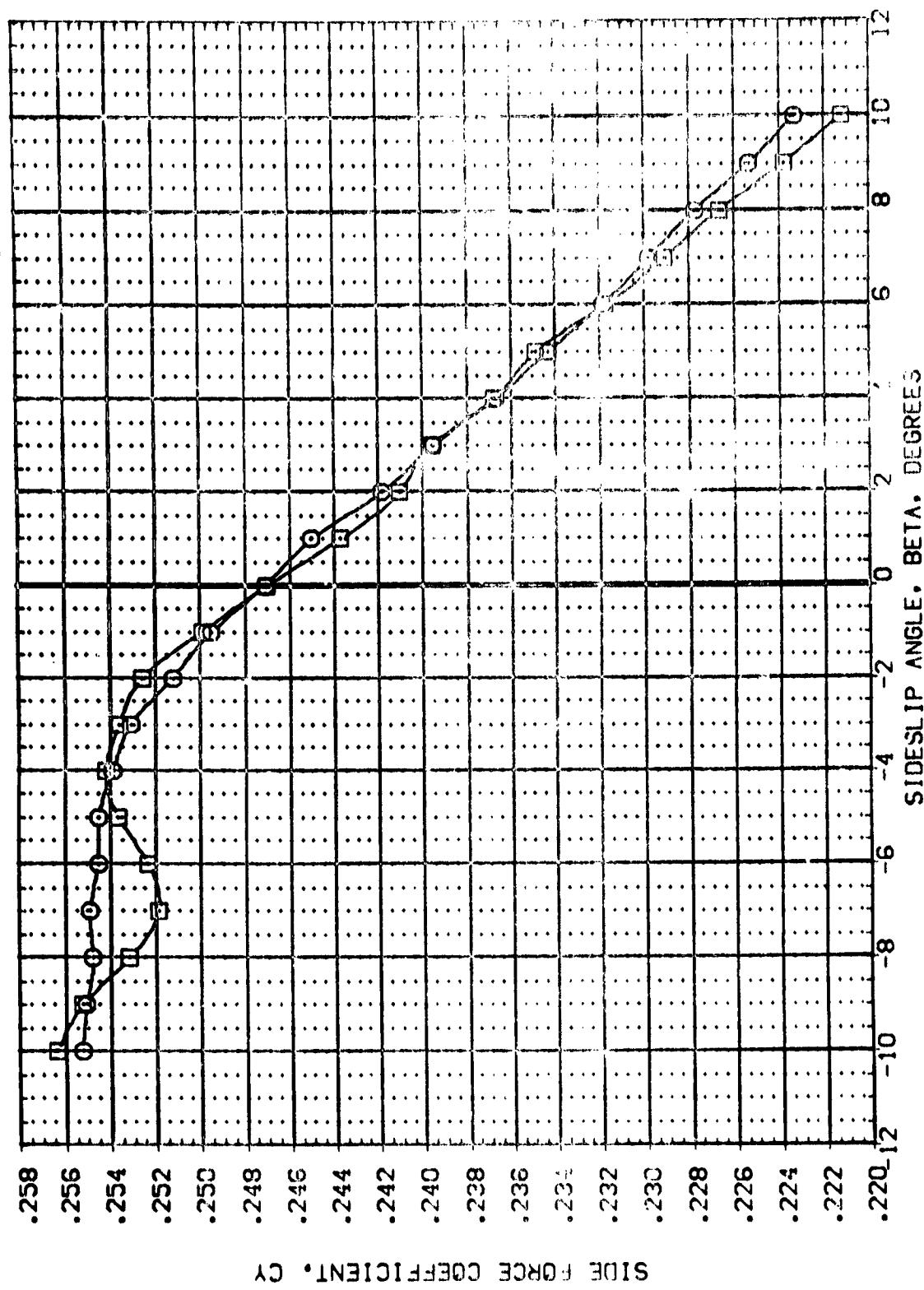
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 1, PT-JET=750)

(A) MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

STL012 AEDC VA-422(1A-57) ORB/ET V/RIGHT SRB  
STL037 AEDC VA-422(1A-57) ORB/ET V/BOTH SRB

SRPOS ROLL PT-JET ALPHA REFERENCE INFORMATION  
1.100 1.760 750.000 .000 SRF 1890.0000 SQ.FT.  
1.100 1.760 750.000 .000 LRF 150.3000 IN.  
SRF 150.3000 IN.  
XSP 1167.0000 IN.  
YSP 100.0000 IN.  
ZSP 400.0000 IN.  
SCALE .0100



SIDE FORCE COEFFICIENT, C<sub>y</sub>

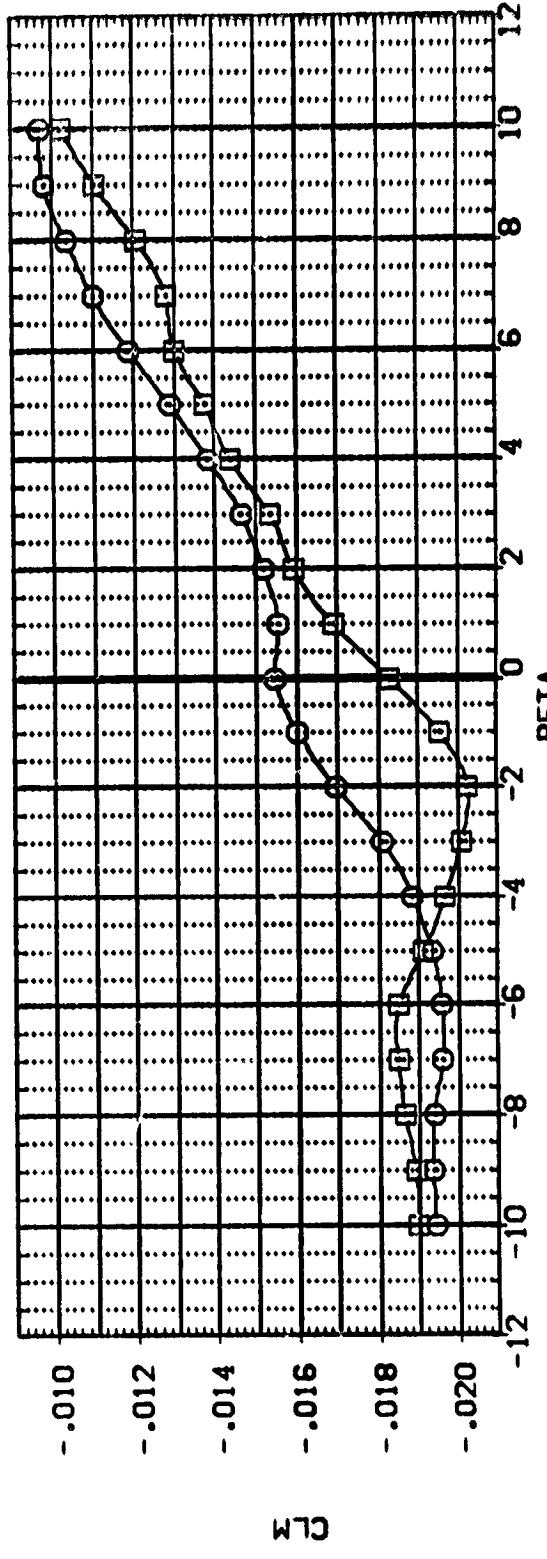
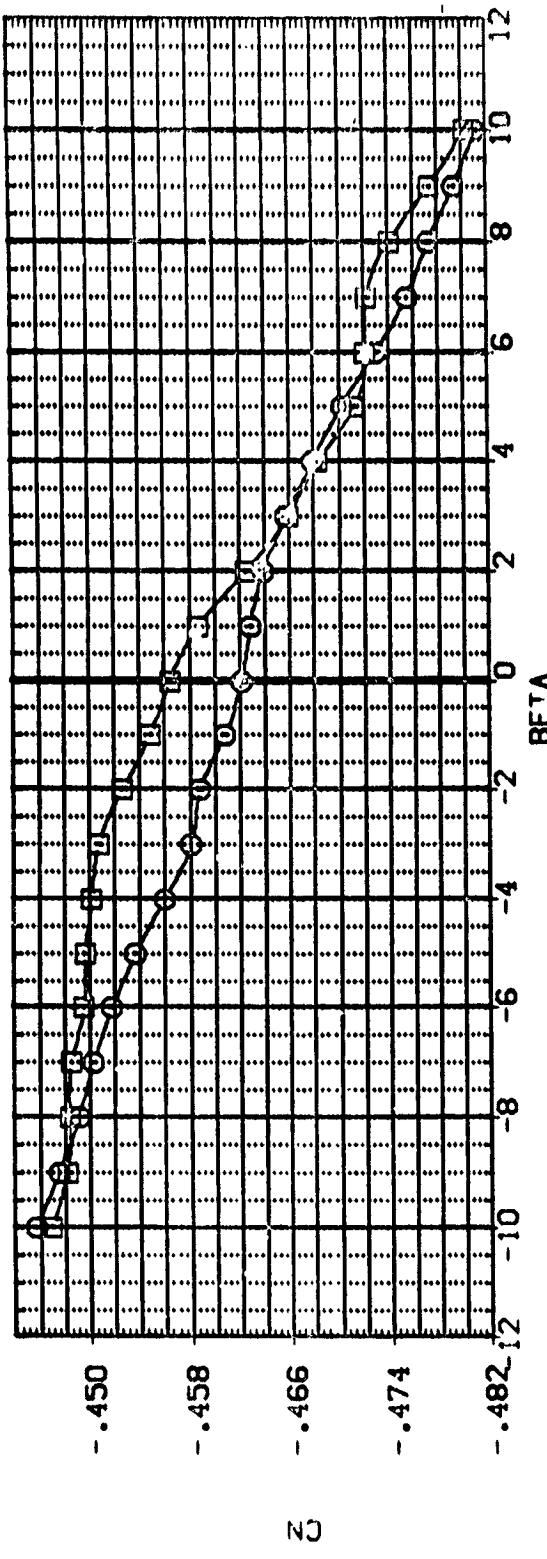
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 1, PT-JET=750)

(A)<sub>MACH</sub> = 4.50

DIGE 255

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL012] AEDC VA-4221(A-S71). ORB/ET V/RIGHT SRB  
 [STL037] AEDC VA-4221(A-S71). ORB/ET V/BOTH SRB

REFERENCE INFORMATION  
 SPEEDS 100 1.750 750.000 .000 PT-JET  
 1.100 1.750 750.000 .000 ALPHA  
 SD.FT. 2690.0000 IN.  
 LREF 1250.3000 IN.  
 BREF 1250.3000 IN.  
 XHPP 1167.0000 IN. IS  
 YHPP 400.0000 IN. IS  
 ZHPP 400.0000 IN. IS  
 SCALE .0100

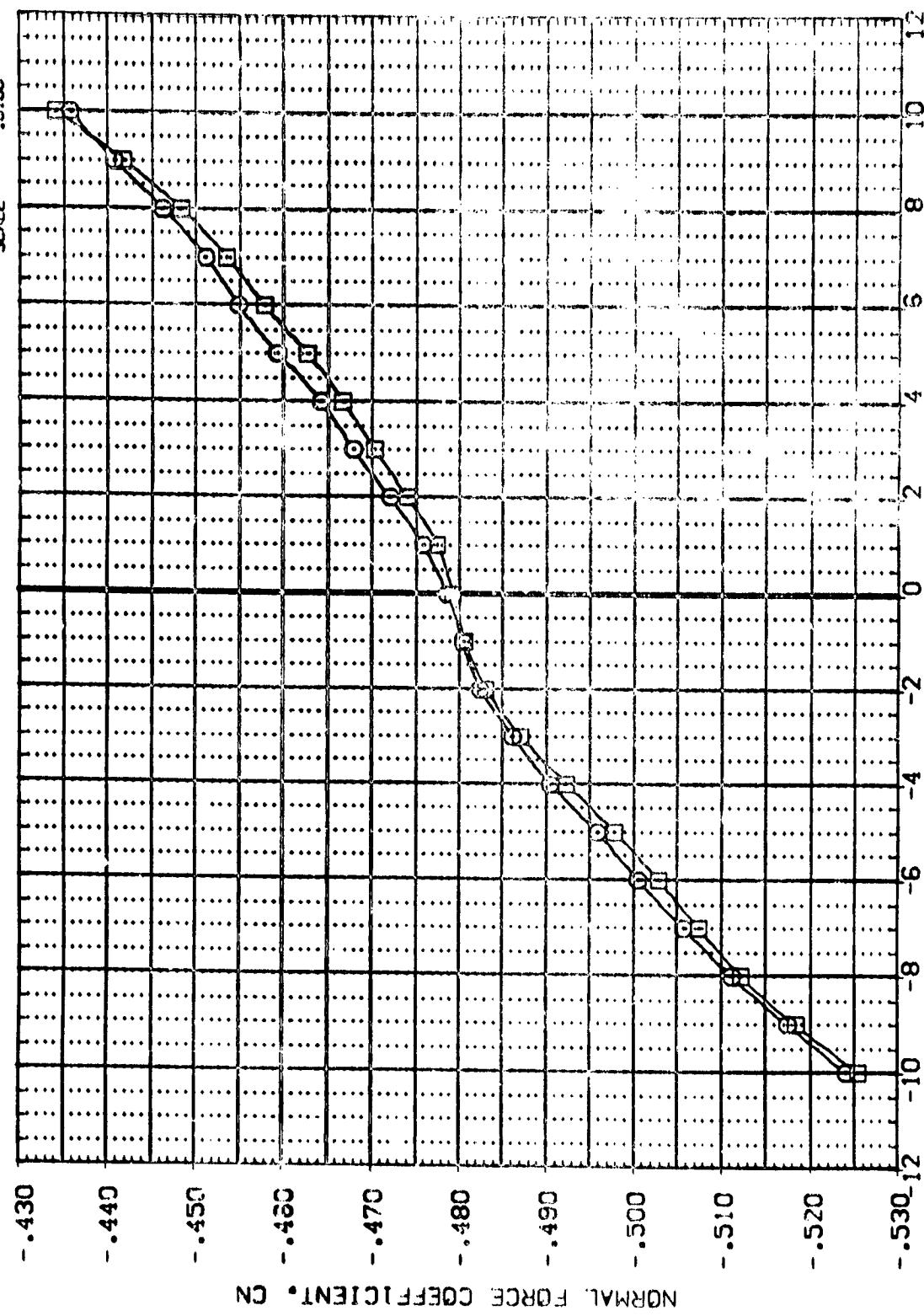


EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 1, PT-JET=750)  
 $(\Delta)_{MACH} = 4.50$

## DATA SET SYMBOL CONFIGURATION DESCRIPTION

(STL019) AEDC VA-422(IA-571); ORB/ET V/RIGHT SRB  
 (STL047) AEDC VA-422(IA-571); ORB/ET V/BOTH SRB

SRBPOS	AVL	P1-JET	BETA	REFERENCE INFORMATION
.200	1.760	750.000	.000	SREF 2890 .0000 SD.FT.
.220	1.760	750.000	.000	LREF 1290 .2000 IN.
				BREF 1290 .3000 IN.
				XREF 1.67 .0000 IN.
				YREF .400 .0000 IN.
				ZREF .0100 .0000 IN.

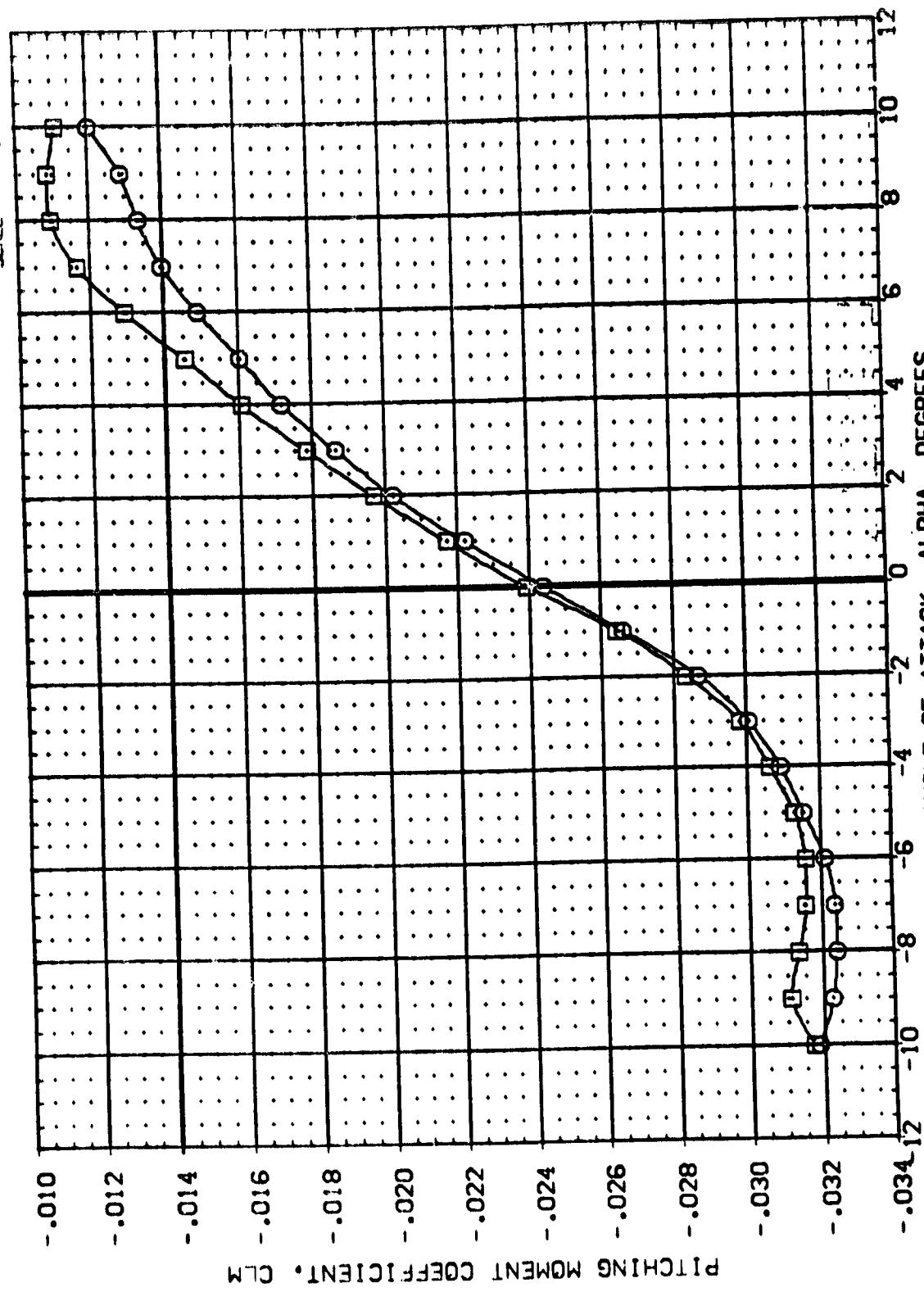


EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 2, P1-JET=750)  
 (A) MACH = 4.50

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DATA SET SYMBOL. CONFIGURATION DESCRIPTION  
 [STL019] AEDE VA-422[IA-57]. ORB/ET V/RIGHT SRB  
 [STL047] AEDE VA-422[IA-57]. ORB/ET V/BOTH SRB

REFERENCE INFORMATION  
 SREF 2690.0000 IN.  
 LREF 1250.3000 IN.  
 BREF 1250.3000 IN.  
 XHPP 1167.0000 IN.  
 YHPP 400.0000 IN.  
 ZHPP 0.0000 IN.  
 SCALE

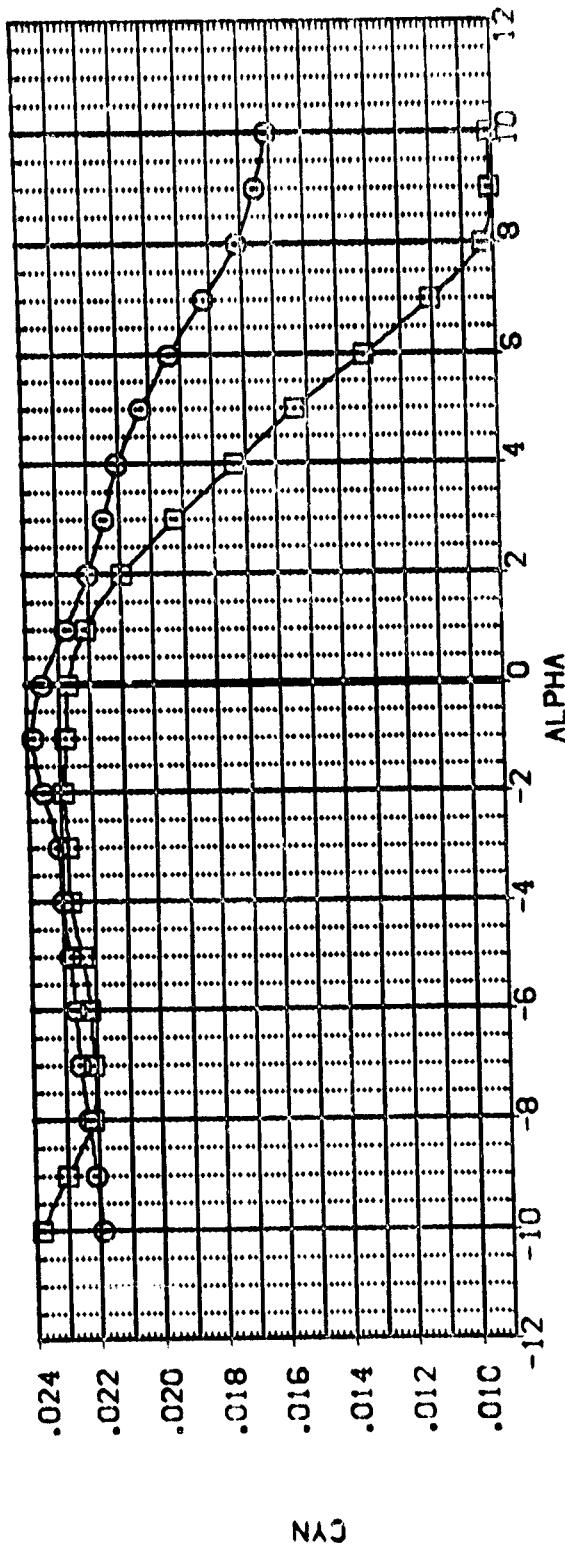


EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 2, PT-JET=750)

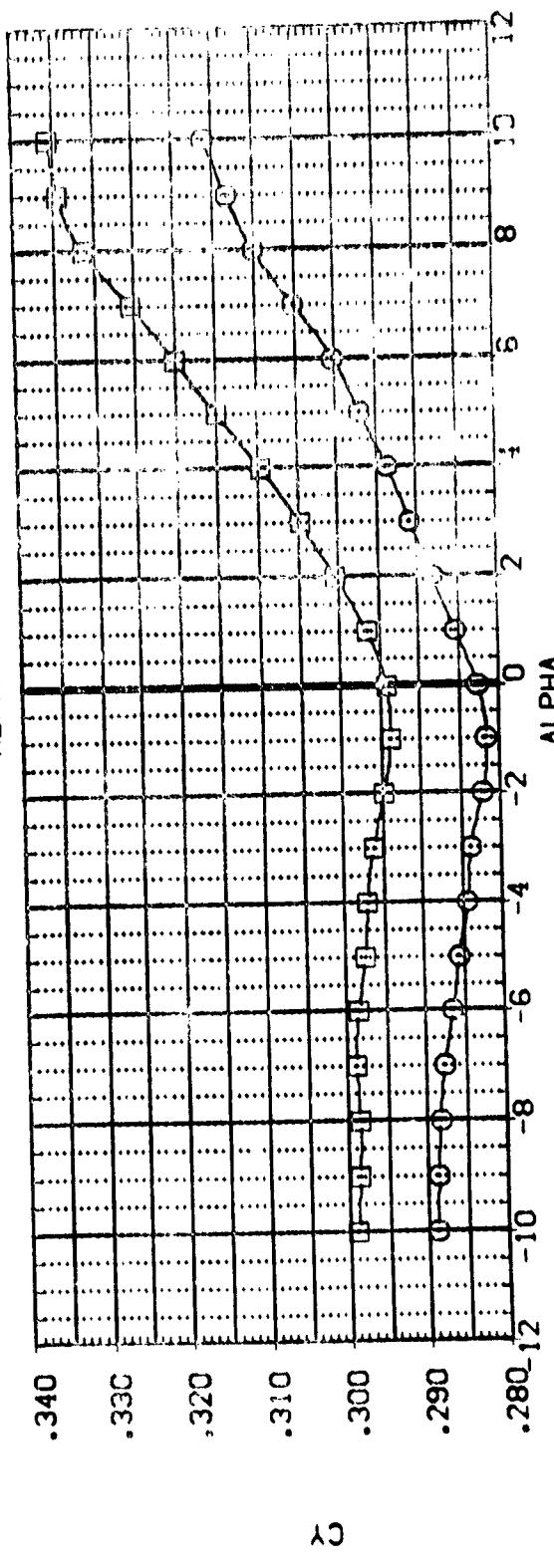
(A) MACH = 4.50

DATA SET SYMBOL: CONFIGURATION DESCRIPTION  
 (STL019)  AEDC VA-422(IA-57). GRB/ET V/BOTH SRB  
 (STL047)  AEDC VA-422(IA-57). GRB/ET V/BOTH SRB

REFERENCE INFORMATION  
 SRPOS RFL PI-JET BETA REF  
 2.200 1.760 750.000 .000 SREF  
 2.200 1.760 750.000 .000 LREF  
 1250.3000 IN.  
 1250.3000 IN.  
 1167.0000 IN.  
 1167.0000 IN.  
 400.0000 IN.  
 400.0000 IN.  
 SCALE .0100



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EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 2, PT-JET=750)

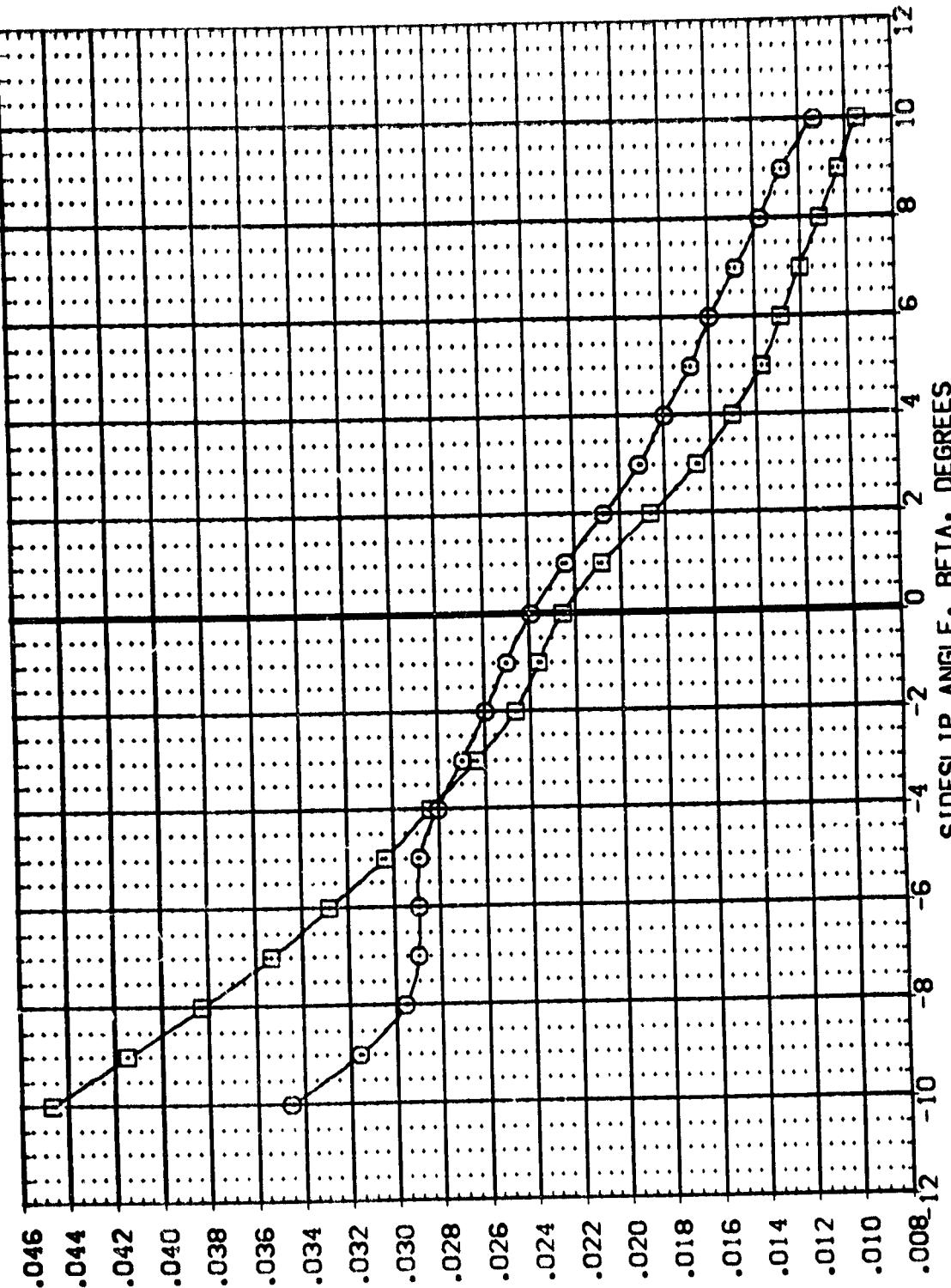
(AJMACH = 4.50)

0.35  
0.30

DATA SET SYMBOL. CONFIGURATION DESCRIPTION  
 [STL020] O AEDC VA-422([A-57]), DRB/ET V/RIGHT SRB  
 [STL048] □ AEDC VA-422([A-57]), DRB/ET V/BOTH SRB

SRBPOS ROLL PT-JET ALPHA REFERENCE INFORMATION  
 .200 1.760 750.000 .000 SREF 2690.0000 SQ.F.T.  
 2.200 1.760 750.000 .000 LREF 1290.3000 IN.  
 BREF 1290.3000 IN.  
 XMP 1167.0000 IN.  
 YMP .0000 IN.  
 ZMP 400.0000 IN.  
 SCALE .0130

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



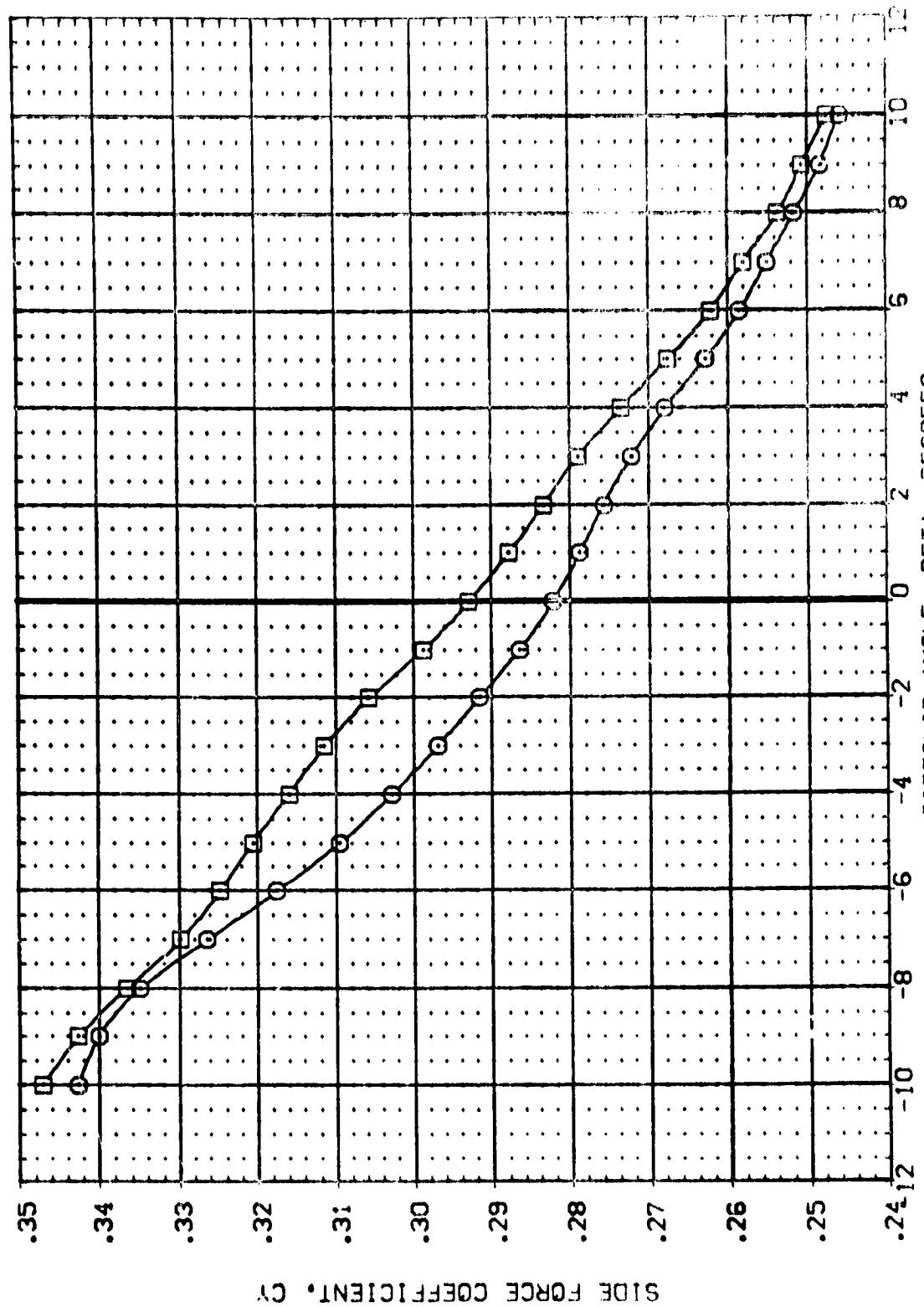
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 2, PT-JET=750)

(A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL00] AEDC VA-4221(A-57); GRB/ET V/BRIGHT SRB  
 [STL018] AEDC VA-4221(A-57); GRB/ET V/BOTH SRB

REFL PT-JET ALPHA REFERENCE INFORMATION  
 .200 1.760 750,000 .000 SREF 2690,0000 SC.FT.  
 .205 1.760 750,000 .000 LREF 1290,3000 IN.  
 BREF 1290,3000 IN.  
 XJRP 1167,0000 IN.  
 YJRP .0000 IN.  
 ZJRP 400,0000 IN.  
 SCALE .0130



EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 2, PT-jET=750)

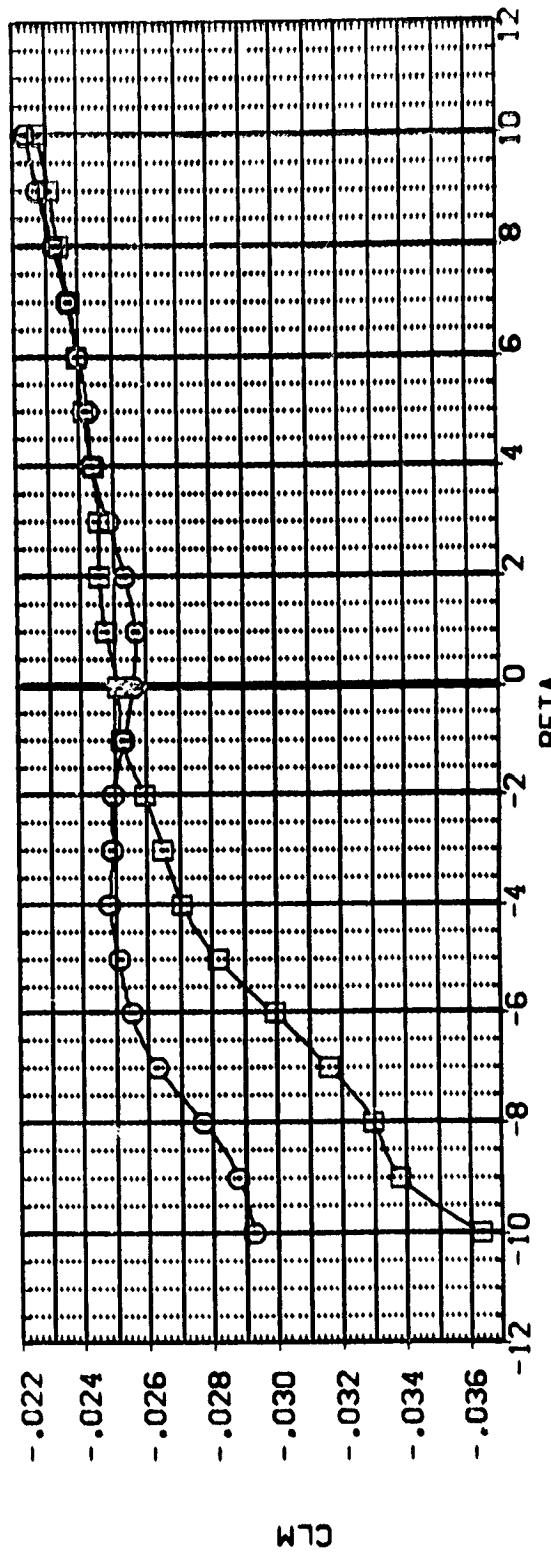
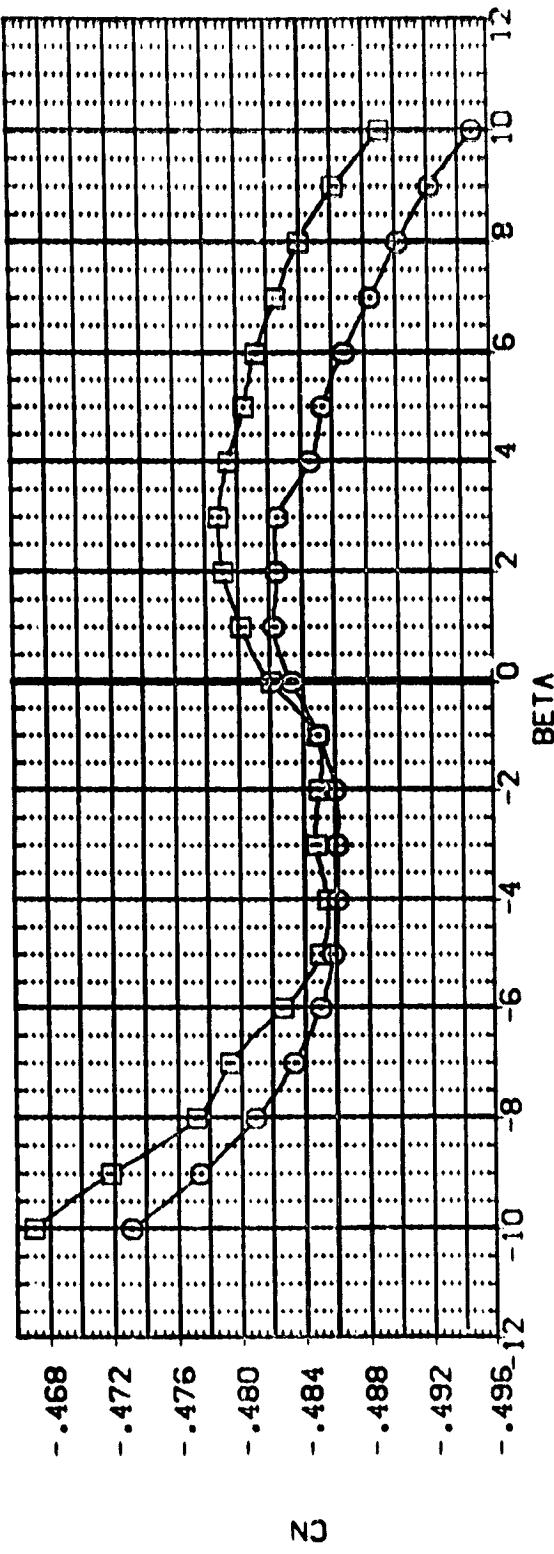
$$MACH = 4.50$$

DATE 30.7.



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL020] AEDC VA-422([A-57]), V/RIGHT SRB  
 [STL048] AEDC VA-422([A-57]), V/BOTH SRB

SRPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 2.200 1.760 750.000 .000 SHEF 2680.0000 SD.FT.  
 2.200 1.760 750.000 .000 LREF 1250.3000 IN.  
 SREF 1250.3000 IN.  
 XSP 1167.0000 IN.  
 YSP 400.0000 IN.  
 ZSP -.0100 IN.



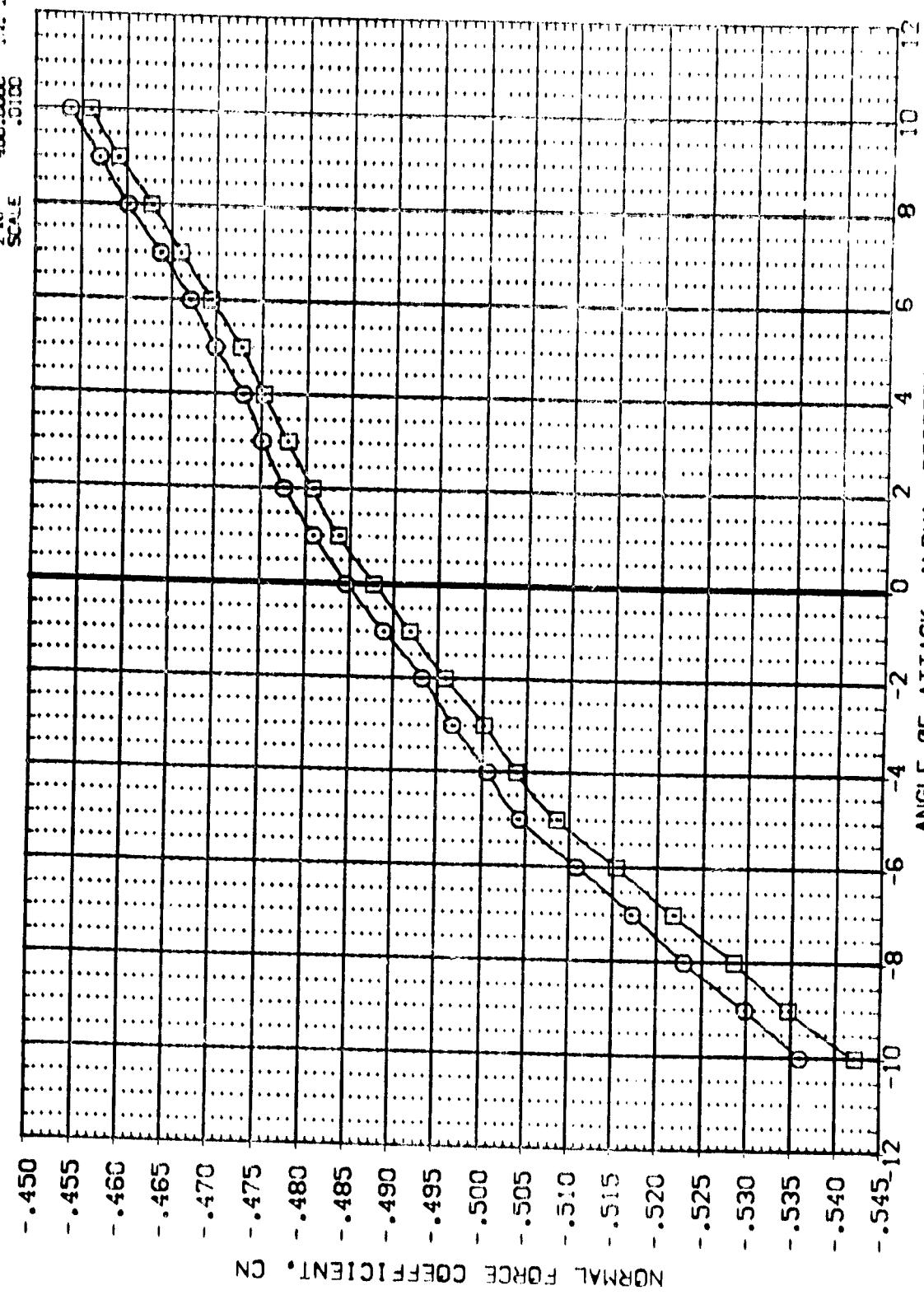
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 2, PT-JET=750)

(AJMACH = 4.50)

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (S1-027) AEDC VA-122(IA-57). ORB/ET V/RIGHT SRB  
 (S1-058) AEDC VA-122(IA-57). ORB/ET V/BOTH SRB

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (S1-027) AEDC VA-122(IA-57). ORB/ET V/RIGHT SRB  
 (S1-058) AEDC VA-122(IA-57). ORB/ET V/BOTH SRB

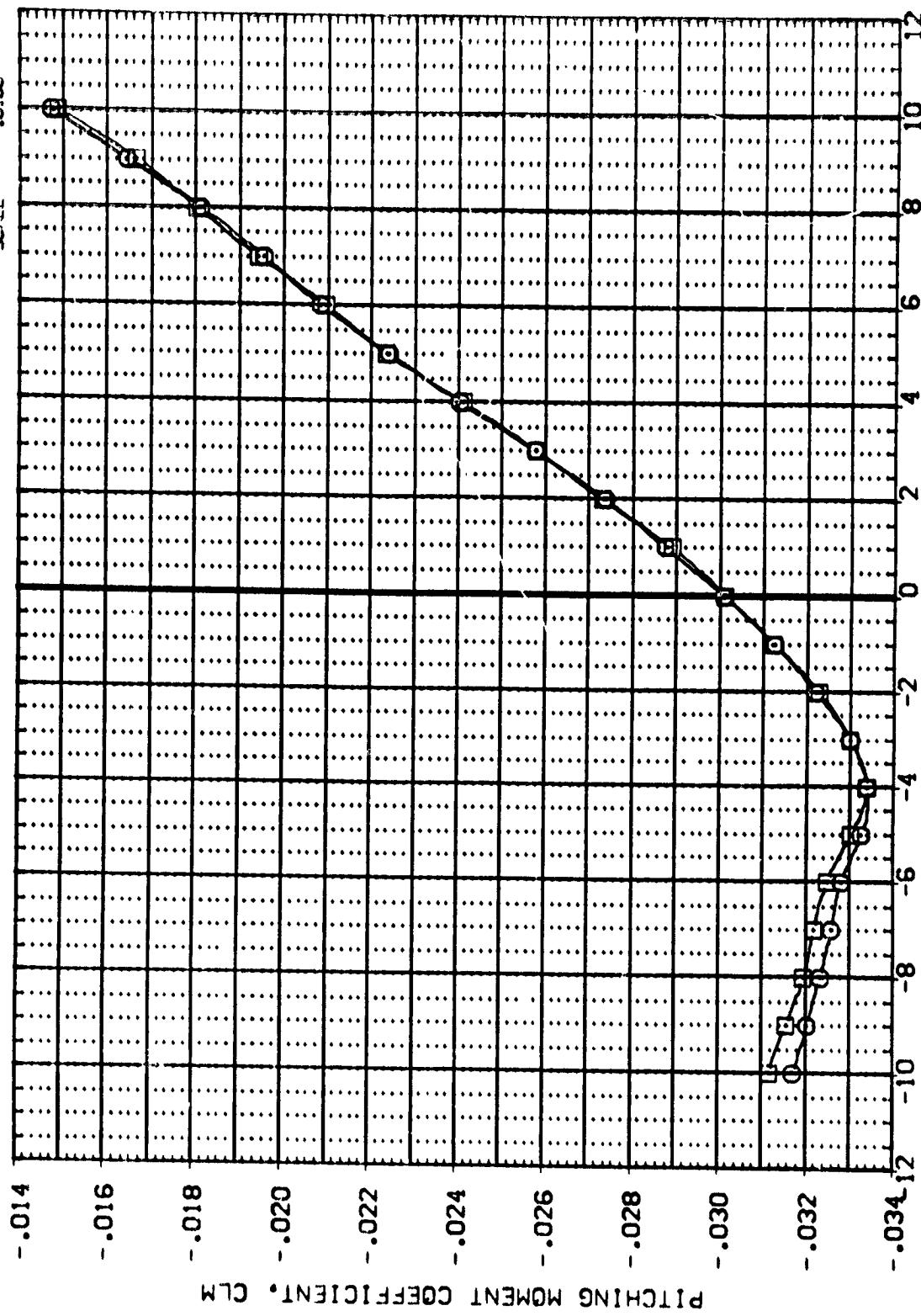


EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, PI-JET=50)  
 $\alpha_{MACH} = 4.50$

Date: 10/12/72

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 ST-0271 AEDC VA-422(IA-57): ORB/ET V/RIGHT SRB  
 ST-0581 AEDC VA-422(IA-57): ORB/ET V/BOTH SRB

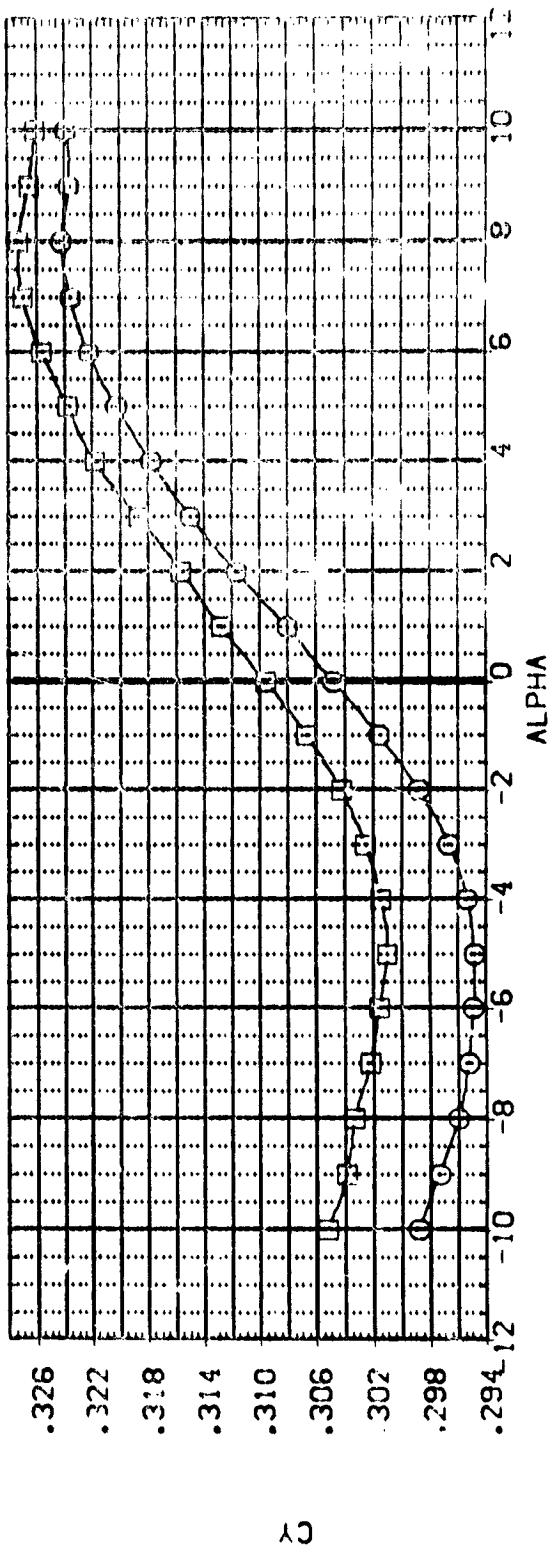
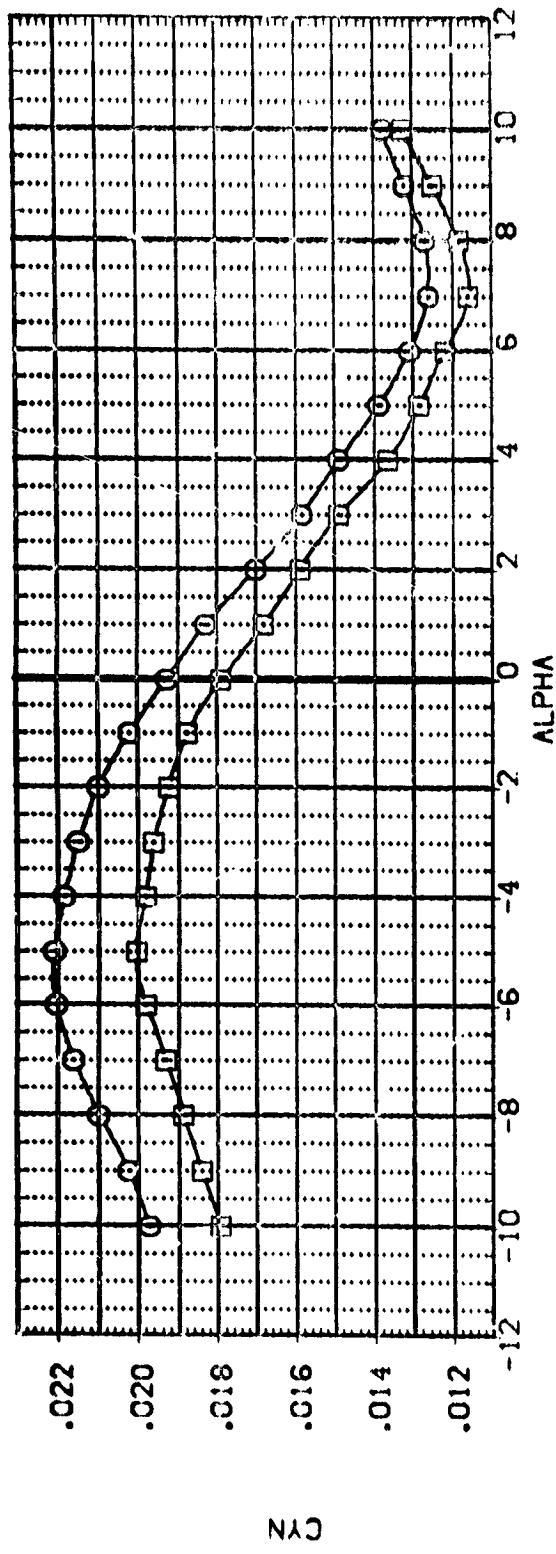
REFERENCE INFORMATION  
 SRPOS RVAL PT-JET BETA  
 .300 1.750 750,000 .000 SREF 2890,0000 SD.FT.  
 3.300 1.760 750,000 .000 LREF 1290,3000 IN.  
 SREF 1290,3000 IN.  
 KREF 1.67,0000 IN.  
 YREF 400,0000 IN.  
 ZREF 400,0000 IN.  
 SCALE .330



EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, PT-JET=750)  
 CA(MACH) = 1.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL027] AEDC VA-422 [A-571] ORBET WRIGHT SRB  
 [STL058] AEDC VA-422 [A-571] ORBET W/BOTH SRB

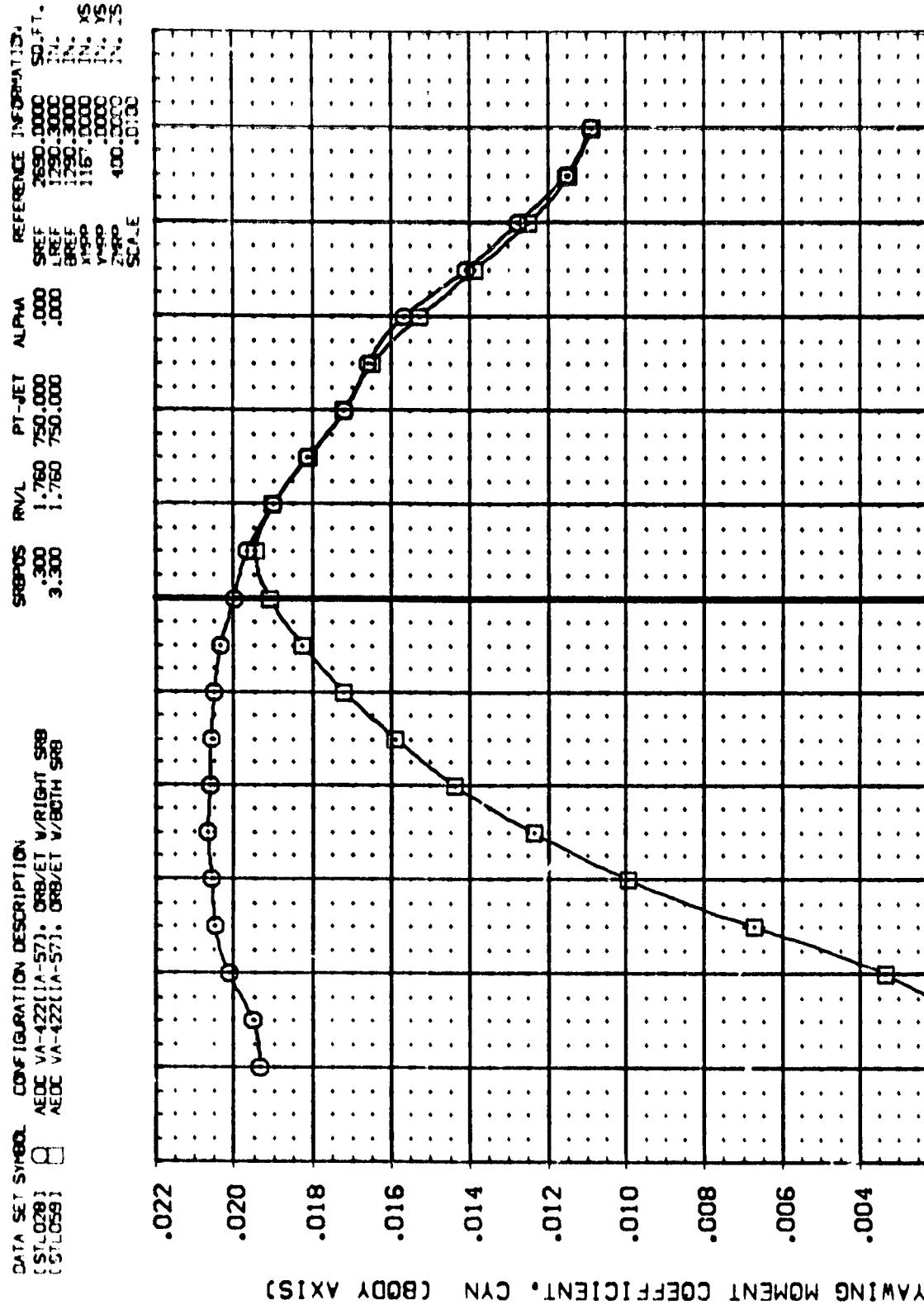
SERIALS ROLL PI-JET BETA REFERENCE INFORMATION  
 3:300 1:760 750,000 .000 SREF 260,000 SCF  
 3:300 1:760 750,000 .000 LREF 250,300 N  
 SREF 250,300 N  
 XREF 167,000 N  
 YREF 400,000 N  
 ZREF 400,000 N  
 SCALE .0100



EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, PI-JET = 200)  
 [A]<sup>MACH</sup> = 4.50

15

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (SET 1028) AE/DC VA-4222(IA-571). DRIVE/EI V/RIGHT SRB  
 (SET 1029) AE/DC VA-4222(IA-571). DRIVE/EI V/BOTH SRB



YAWING MOMENT COEFFICIENT. CYN (BODY AXIS)

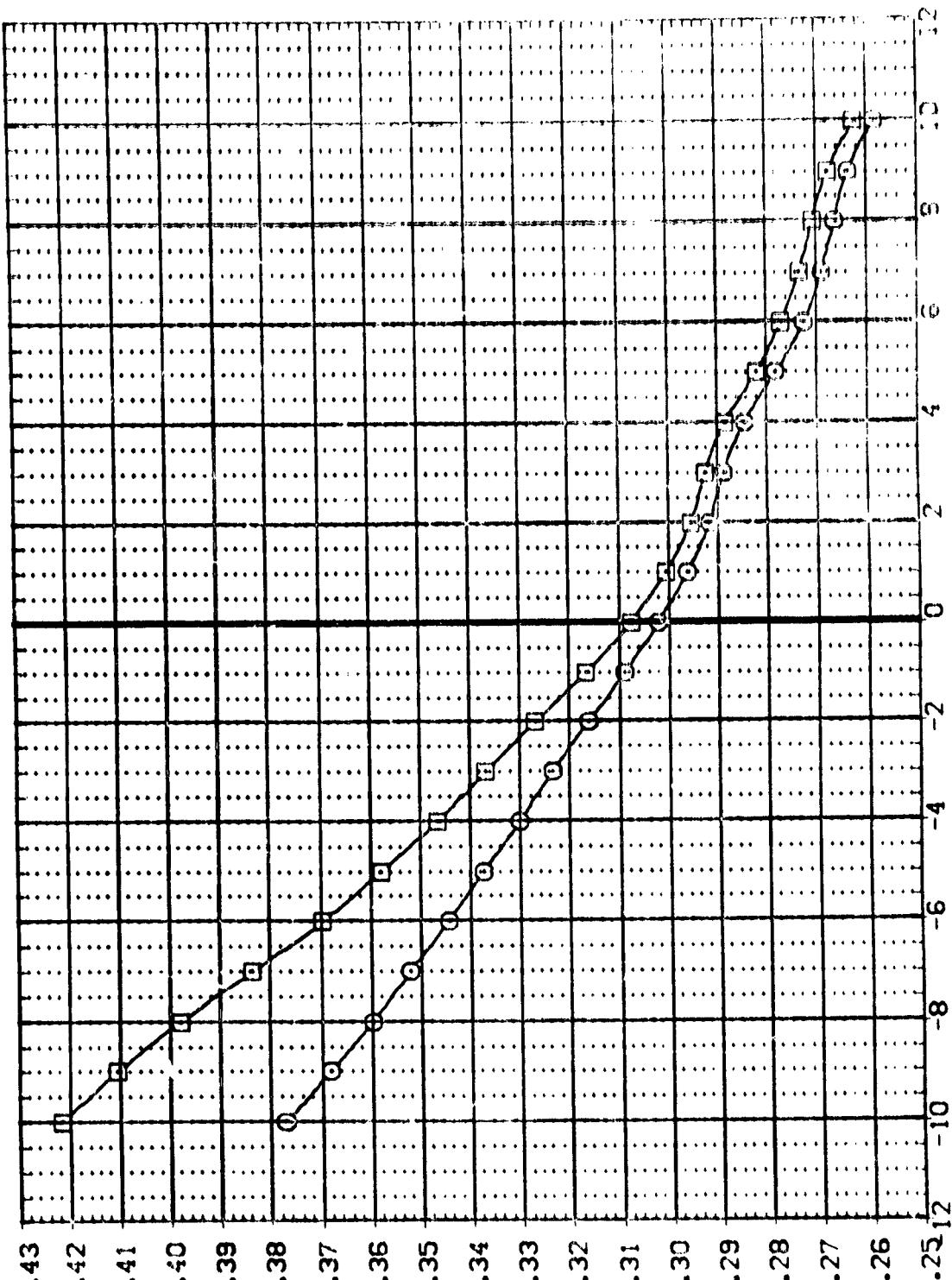
### EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, PI-JET=750)

C/MAACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (STL028) AEDC VA-4221(A-571) SRB/ET V/RIGHT SRB  
 (STL059) AEDC VA-4221(A-571) SRB/ET V/BOTH SRB

SERIAL REF. PT-JET ALPHA REFERENCE INFORMATION  
 3:300 1.780 750.000 .000 SPEC 130.0000 50.17.  
 3:300 1.780 750.000 .000 SPEC 130.0000 50.17.  
 SCALE



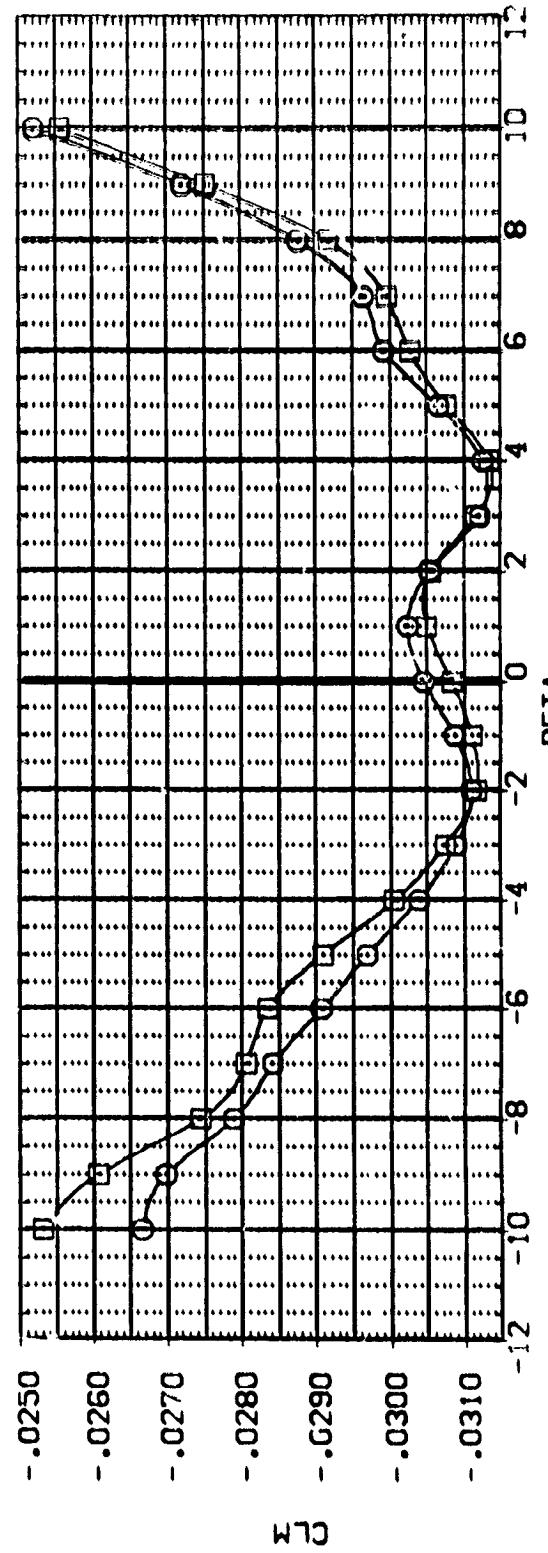
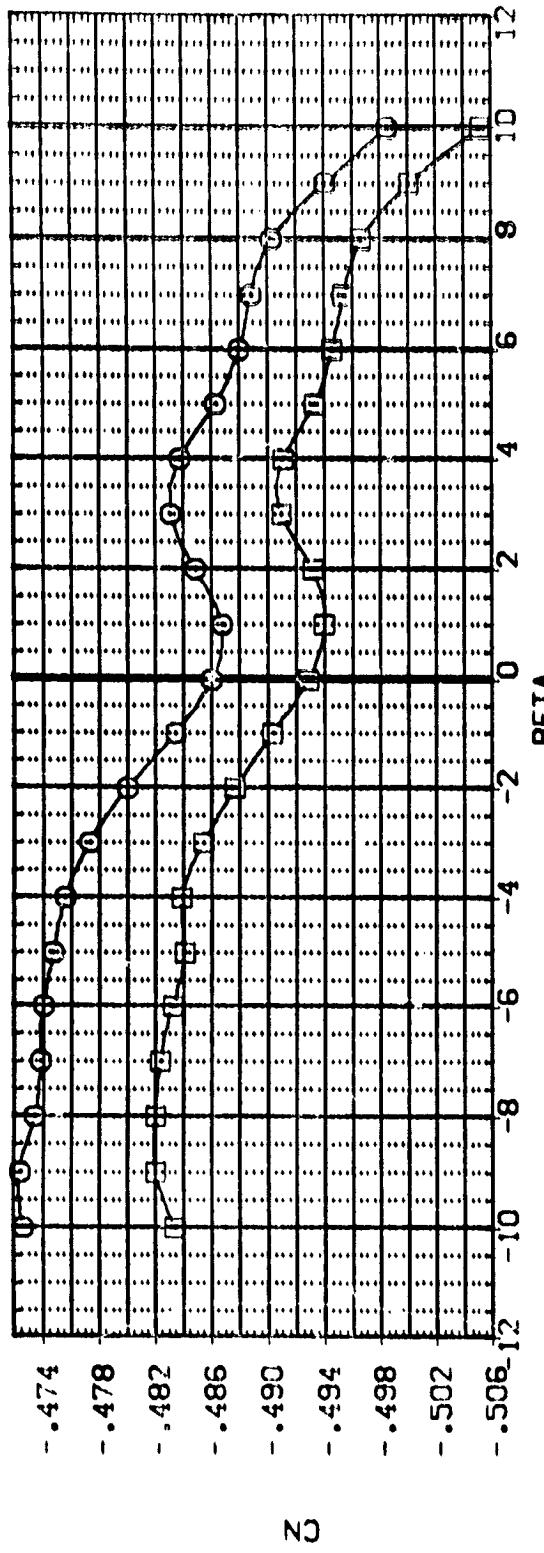
SIDE FORCE COEFFICIENT, C<sub>y</sub>

EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, PT-JET=750)  
 $(\Delta) v = C_1 = 1.50$

2:5E 3:5R

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 S-028 AEDC VA-422(VA-57) SRB/VRIGHT SRB  
 S-059 AEDC VA-422(VA-57) SRB/ET V/BOTH SRB

SERIAL POSITION PI-JET ALPHAS DIFFERENCE IN SEPARATION  
 3.300 1.760 750.000 .000 500.000 50 FT.  
 3.300 1.760 750.000 .000 500.000 50 FT.



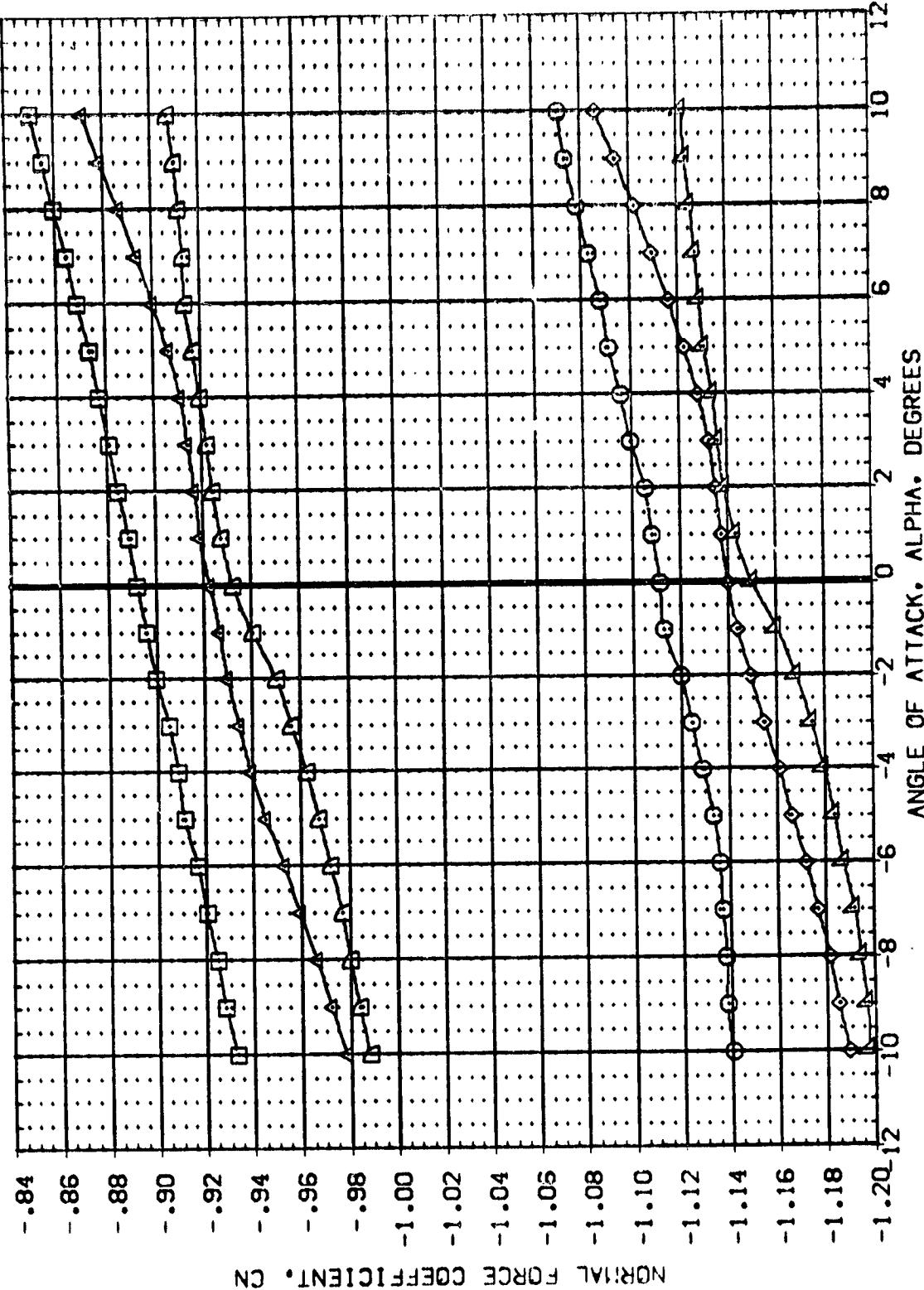
EFFECT OF POSITION ON SRB CHARACTERISTICS (POSITION 3, PI-JET=750)  
 APPROXIMATE = 4.50

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DATA SET SYMBOL      CONFIGURATION DESCRIPTION

[STL032]	AEDC VA-422[[A-57]]	ORB/ET V/BOTH SRB
[STL038]	AEDC VA-422[[A-57]]	ORB/ET V/BOTH SRB
[STL043]	AEDC VA-422[[A-57]]	ORB/ET V/BOTH SRB
[STL049]	AEDC VA-422[[A-57]]	ORB/ET V/BOTH SRB
[STL054]	AEDC VA-422[[A-57]]	ORB/ET V/BOTH SRB
[STL060]	AEDC VA-422[[A-57]]	ORB/ET V/BOTH SRB

REYNOLDS NUMBER      REYNOLDS NUMBER IN FEET  
 SRPOS      RVEL      PT-JET      BETA      SREF      1580,0000      52,FT.  
 1.100      1.400      1500,000      .000      .000      1580,0000  
 1.100      1.760      1500,000      .000      .000      1580,0000  
 2.200      1.400      1500,000      .000      .000      1580,0000  
 2.200      1.760      1500,000      .000      .000      1580,0000  
 3.300      1.400      1500,000      .000      .000      1580,0000  
 3.300      1.760      1500,000      .000      .000      1580,0000  
 SCALE      .3100

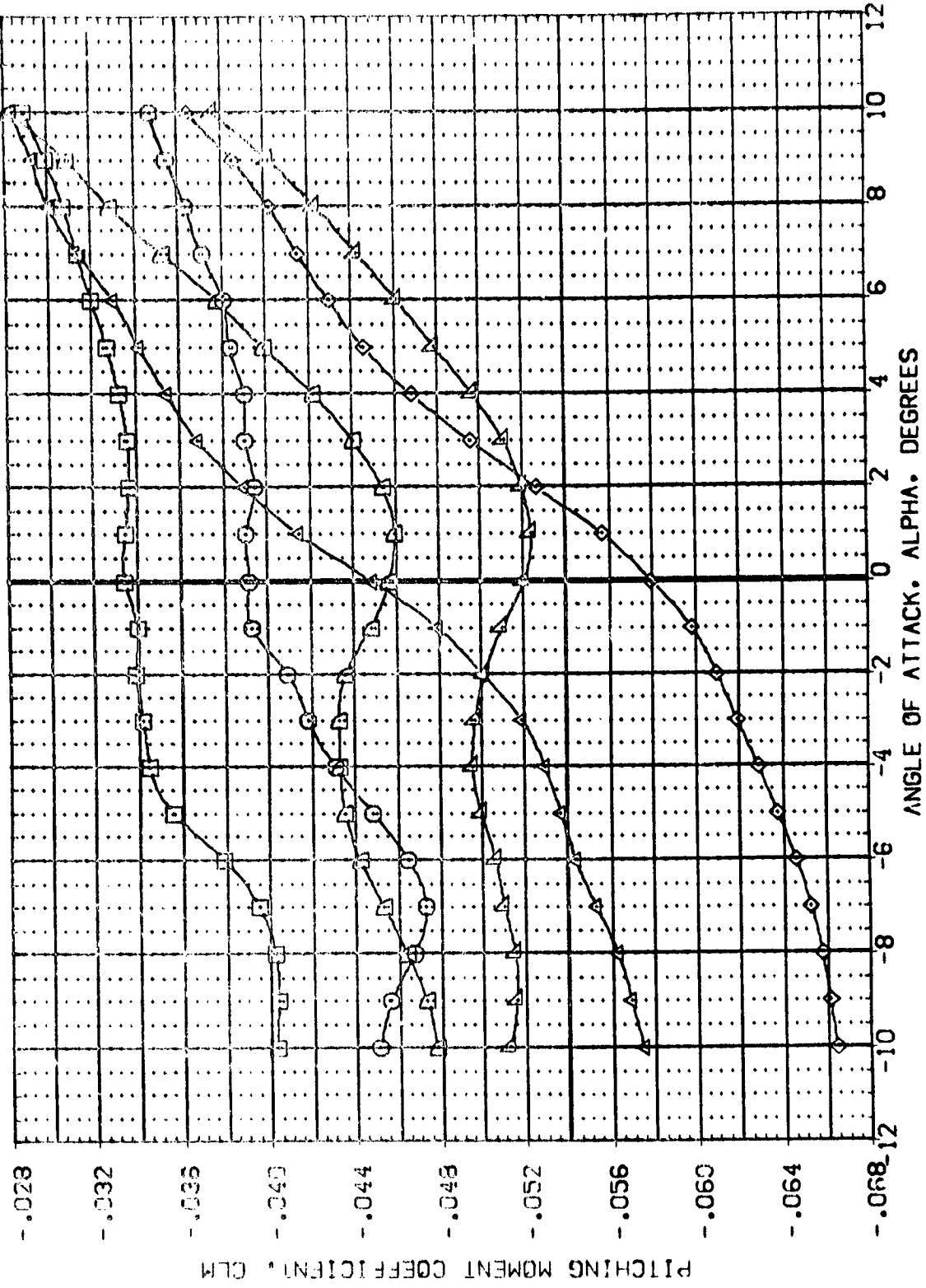


EFFECT OF REYNOLDS NUMBER ON SRB CHARACTERISTICS

CAMMACH = 4.50

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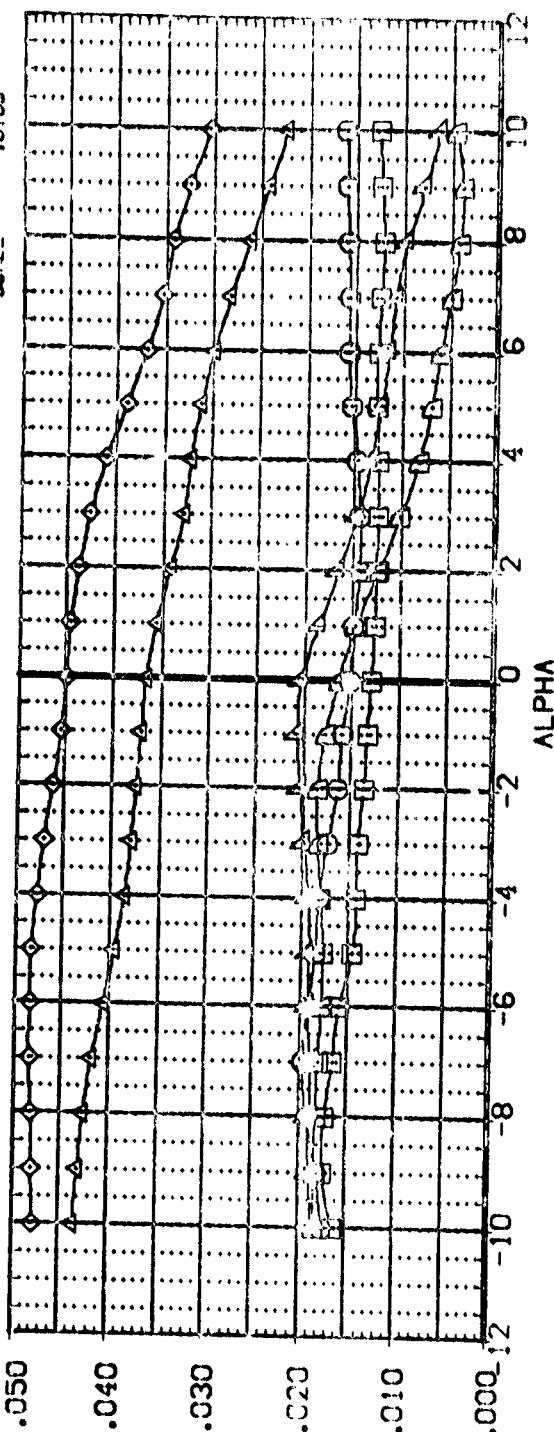
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	RVAL	PT-JET	BETA	REFERENCE INFORMATION
(STL032)	AEDC VA-422(IA-57) GRB/ET V/BOTH SRB	1.100	.400	1500.000	.000	REF 2600.000 SC.FT.
(S-038)	AEDC VA-422(IA-57) GRB/ET V/BOTH SRB	1.100	.750	1500.000	.000	REF 3000 SC.FT.
(S-043)	AEDC VA-422(IA-57) GRB/ET V/BOTH SRB	1.100	1.000	1500.000	.000	REF 3000 SC.FT.
(S-049)	AEDC VA-422(IA-57) GRB/ET V/BOTH SRB	2.200	.400	1500.000	.000	REF 1500 SC.FT.
(S-054)	AEDC VA-422(IA-57) GRB/ET V/BOTH SRB	2.200	.750	1500.000	.000	REF 1500 SC.FT.
(S-056)	AEDC VA-422(IA-57) GRB/ET V/BOTH SRB	2.200	1.000	1500.000	.000	REF 1500 SC.FT.



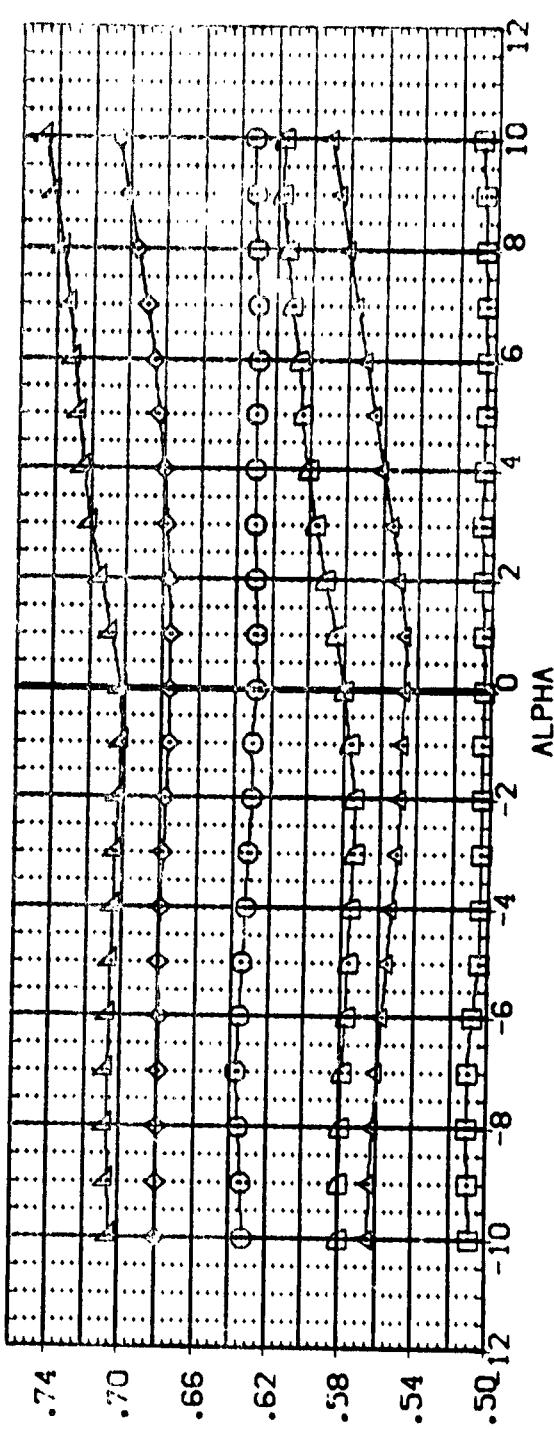
EFFECT OF REYNOLDS NUMBER ON SRB CHARACTERISTICS

DATA SET SUMMARY CONFIGURATION DESCRIPTION

SRN#POS	RNL	PT-JET	BETA	REFERENCE INFORMATION
1-100	1-400	1500.000	.000	SREF 2500.0000 SQ.FT.
1-100	1-760	1500.000	.000	LREF 1250.3000
2-200	2-760	1500.000	.000	DREF 1150.0000
2-200	2-760	1500.000	.000	XREF 1150.0000
3-300	3-400	1500.000	.000	YREF 1500.0000
3-300	3-760	1500.000	.000	ZREF 1500.0000



CYAN

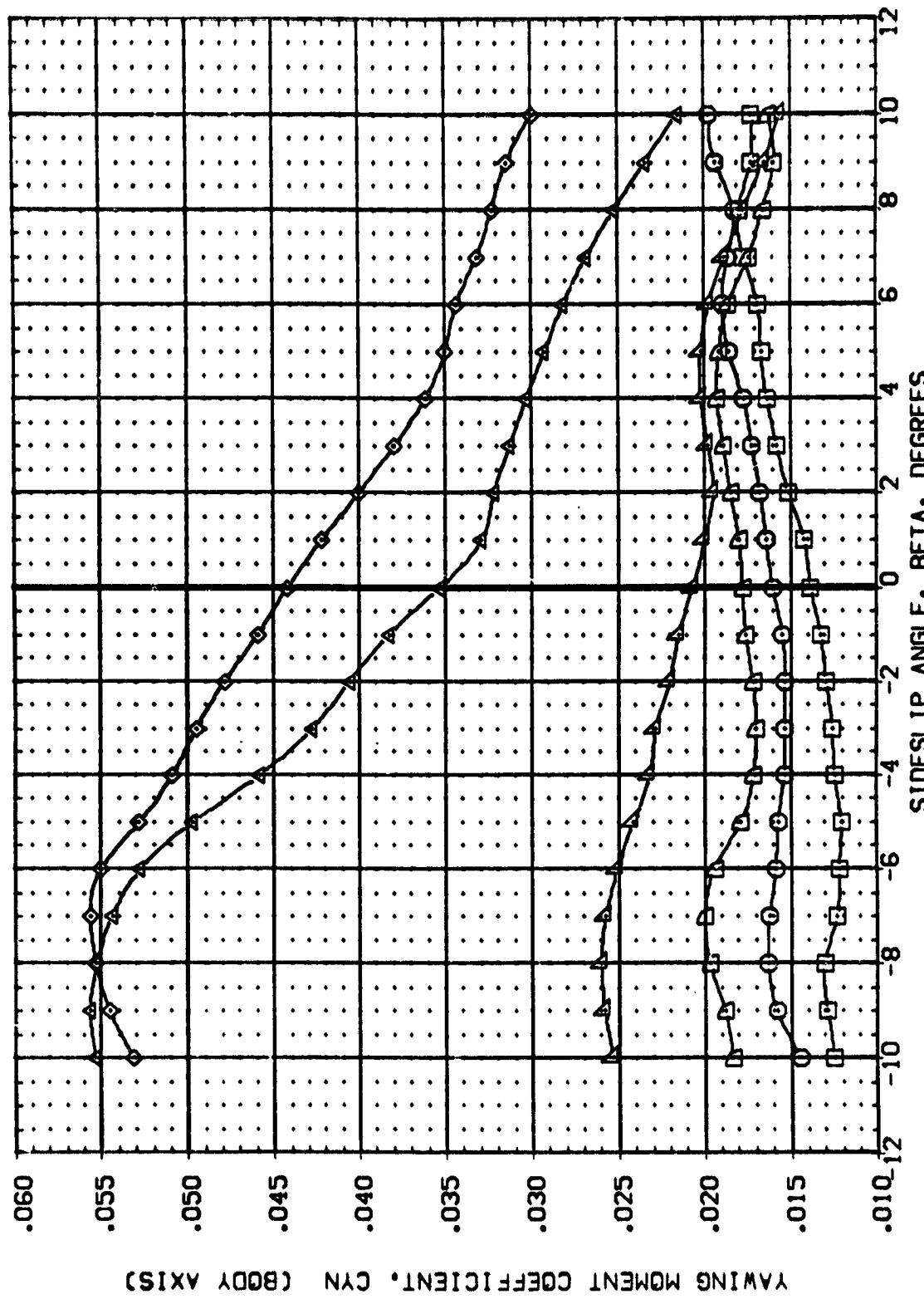


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## EFFECT OF REYNOLDS NUMBER ON SRB CHARACTERISTICS

$$(\text{A}) \text{MACH} = 4.50$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	AVL	PT-JET	ALPHA	REFERENCE INFORMATION
[STL033]	AEDC VA-4221 IA-571. ORB/EIT V/BOTH SRB	1.100	1.400	1500.000	.000	SPF 2690.0000 IN.
[STL038]	AEDC VA-4221 IA-571. ORB/EIT V/BOTH SRB	1.100	1.760	1500.000	.000	LREF 1290.3000 IN.
[STL044]	AEDC VA-4221 IA-571. ORB/EIT V/BOTH SRB	2.200	1.400	1500.000	.000	BREF 1167.0000 IN.
[STL050]	AEDC VA-4221 IA-571. ORB/EIT V/BOTH SRB	2.200	1.760	1500.000	.000	XHPP .0000 IN.
[STL055]	AEDC VA-4221 IA-571. ORB/EIT V/BOTH SRB	3.300	1.400	1500.000	.000	YHPP .0000 IN.
[STL061]	AEDC VA-4221 IA-571. ORB/EIT V/BOTH SRB	3.300	1.760	1500.000	.000	ZHPP .0150 IN.
						SCALE

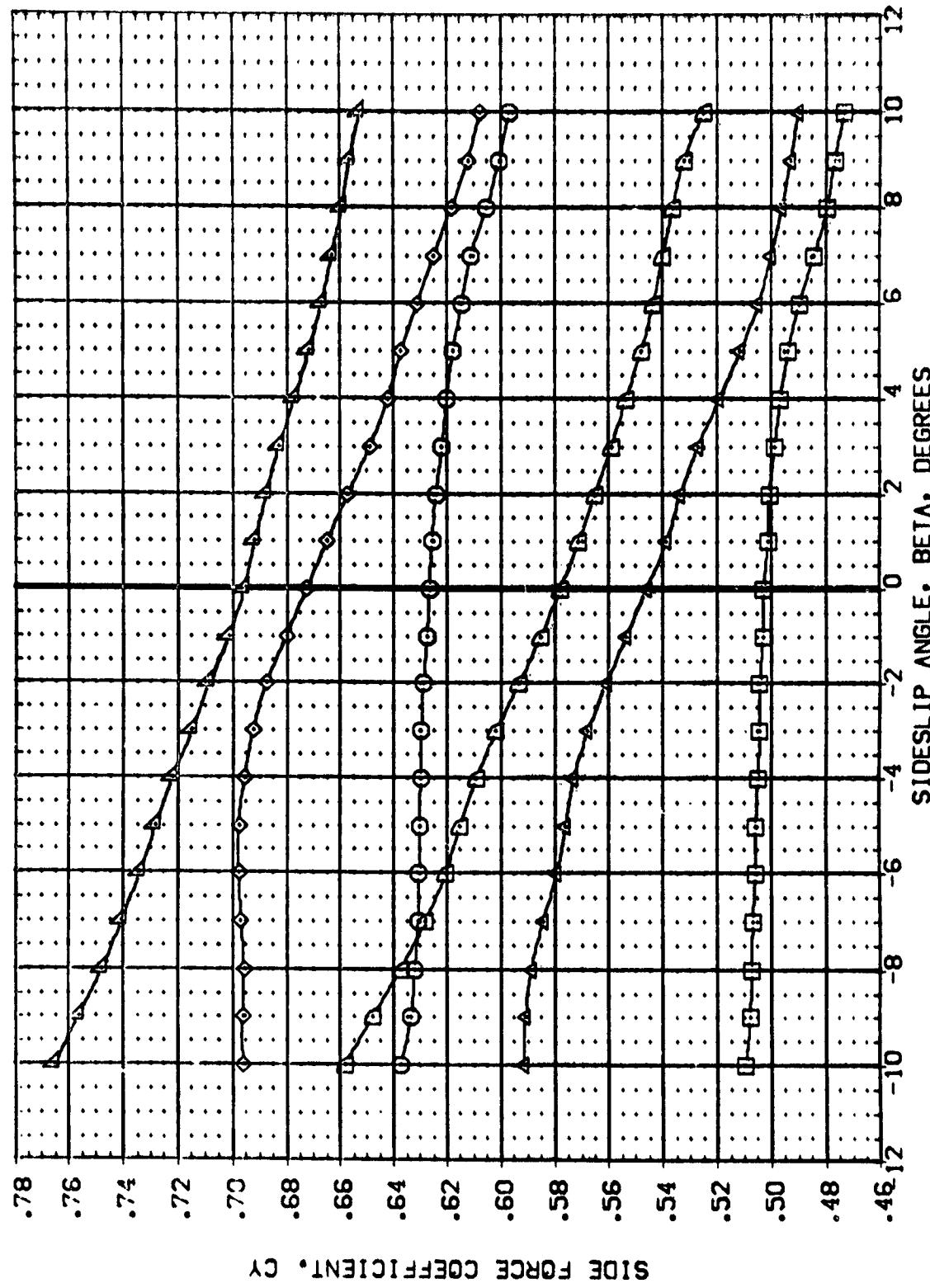


EFFECT OF REYNOLDS NUMBER ON SRB CHARACTERISTICS

(A) MACH = 4.50

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	RVAL	PT-JET	ALPHA	REFERENCE INFORMATION
STL033	AEDC VA-4221(IA-57). ORB/ET V/BOTH SRB	1.100	.400	1500.000	.000	SREF 2650.0000 SD.FT.
STL038	AEDC VA-4221(IA-57). ORB/ET V/BOTH SRB	1.100	.750	1500.000	.000	SREF 1350.3000 SD.FT.
STL044	AEDC VA-4221(IA-57). ORB/ET V/BOTH SRB	1.100	.400	1500.000	.000	SREF 1350.3000 SD.FT.
STL050	AEDC VA-4221(IA-57). ORB/ET V/BOTH SRB	2.200	.400	1500.000	.000	SREF 1167.0000 SD.FT.
STLOSS	AEDC VA-4221(IA-57). ORB/ET V/BOTH SRB	2.200	.750	1500.000	.000	SREF 1167.0000 SD.FT.
STLCS	AEDC VA-4221(IA-57). ORB/ET V/BOTH SRB	3.300	.400	1500.000	.000	SREF 1000.0000 SD.FT.
		3.300	1.750	1500.000	.000	SREF 400.0000 SD.FT.
						SCALE .0100

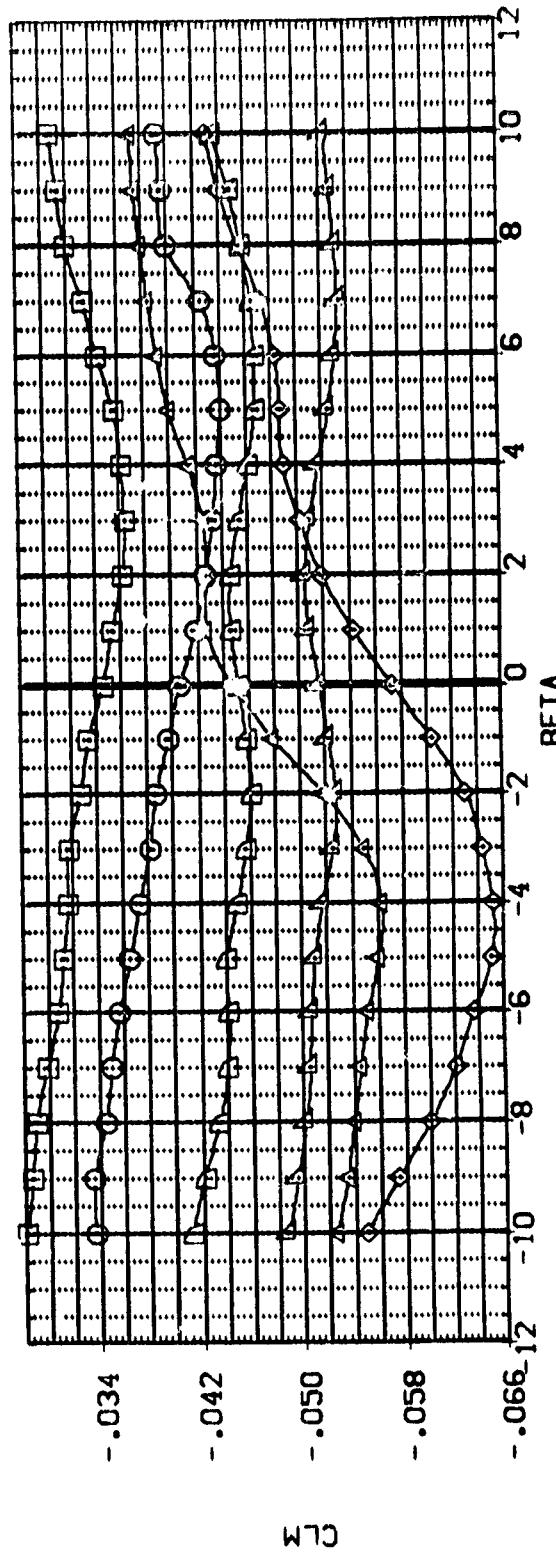
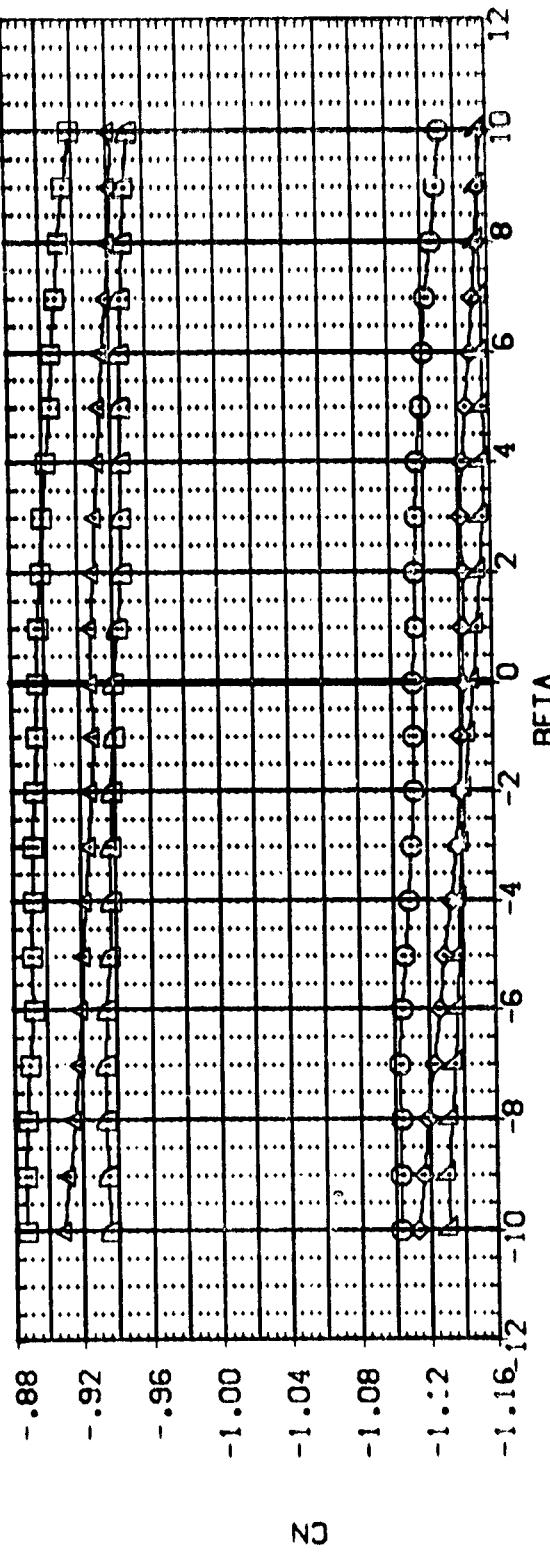


EFFECT OF REYNOLDS NUMBER ON SRB CHARACTERISTICS

(A) MACH = 4.50

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SRBPOS	RVAL	PT-JET	ALPHA	REFERENCE 11F DEPART.	SD.FT.
[STLC33]	AEDC VA-422 [(A-57)] ORB/ET V/BOTH SRB	1.100	1.400 1500 .000	.000	SREF	2650.0000	
[STLC39]	AEDC VA-422 [(A-57)] ORB/ET V/BOTH SRB	1.100	1.760 1500 .000	.000	BREF	1280.3000	
[STLC44]	AEDC VA-422 [(A-57)] ORB/ET V/BOTH SRB	2.200	.400 1500 .000	.000	BREF	1160.3000	
[STLC50]	AEDC VA-422 [(A-57)] ORB/ET V/BOTH SRB	2.200	.760 1500 .000	.000	YREF	111E-0.550	.55
[STLC55]	AEDC VA-422 [(A-57)] ORB/ET V/BOTH SRB	3.300	.400 1500 .000	.000	YREF	1050.0000	.55
[STLC56]	AEDC VA-422 [(A-57)] ORB/ET V/BOTH SRB	3.300	.760 1500 .000	.000	ZREF	400.0000	.55



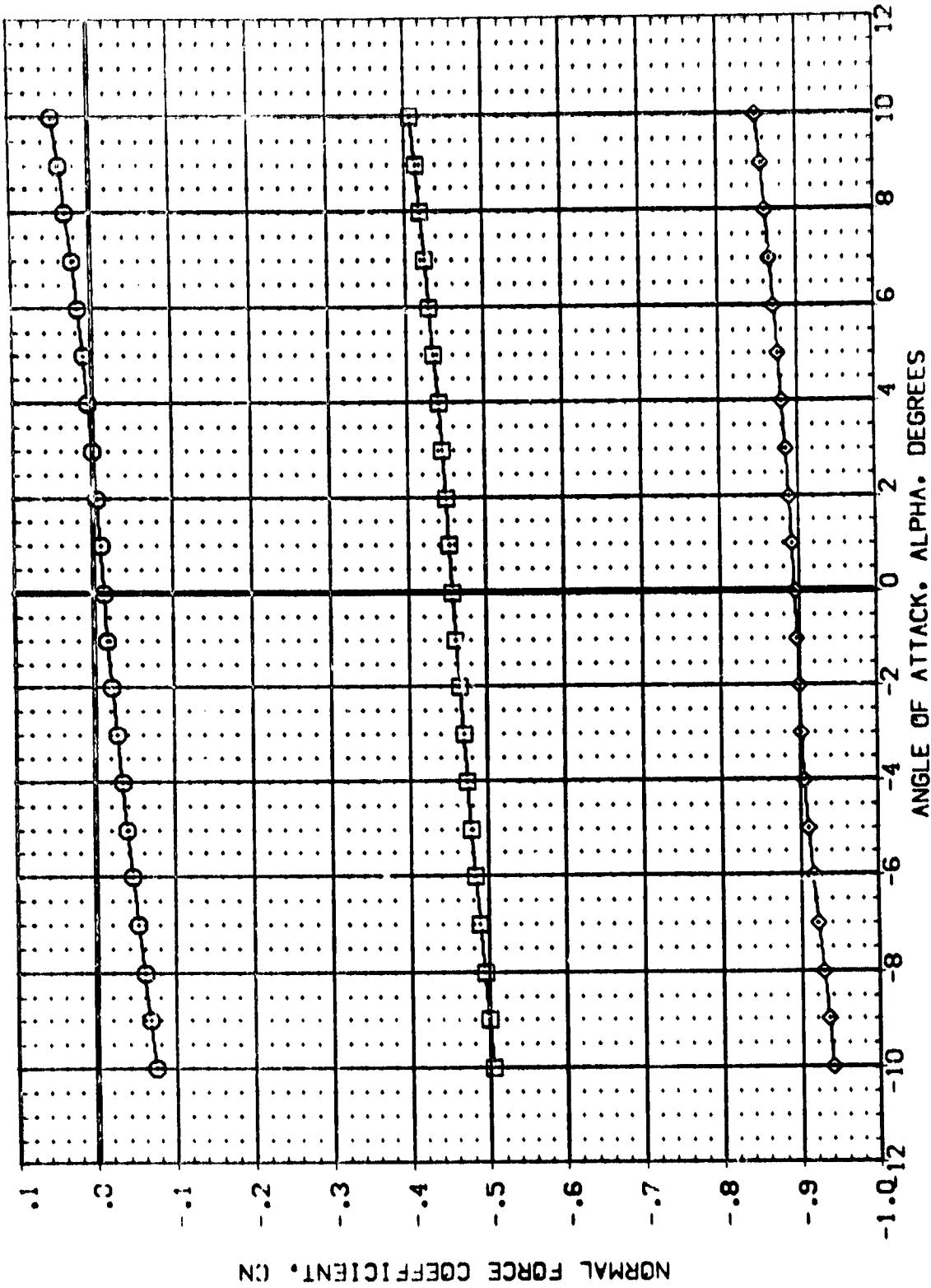
EFFECT OF REYNOLDS NUMBER ON SRB CHARACTERISTICS

(A)<sub>MACH</sub> = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

ST-009	□	CRB/ET V/RIGHT SRB
ST-211	△	CRB/ET V/RIGHT SRB
ST-013	×	CRB/ET V/RIGHT SRB

REFERENCE INFORMATION  
 SRBPOS RSVL PT-JET BETA  
 .100 1.760 .000 .000  
 .108 1.760 .750 .000  
 .100 1.760 1.500 .000  
 ZREF 400.0000 .0100  
 XREF 1167.0000 .15  
 YREF 2890.0000 .15  
 SCALE .0100

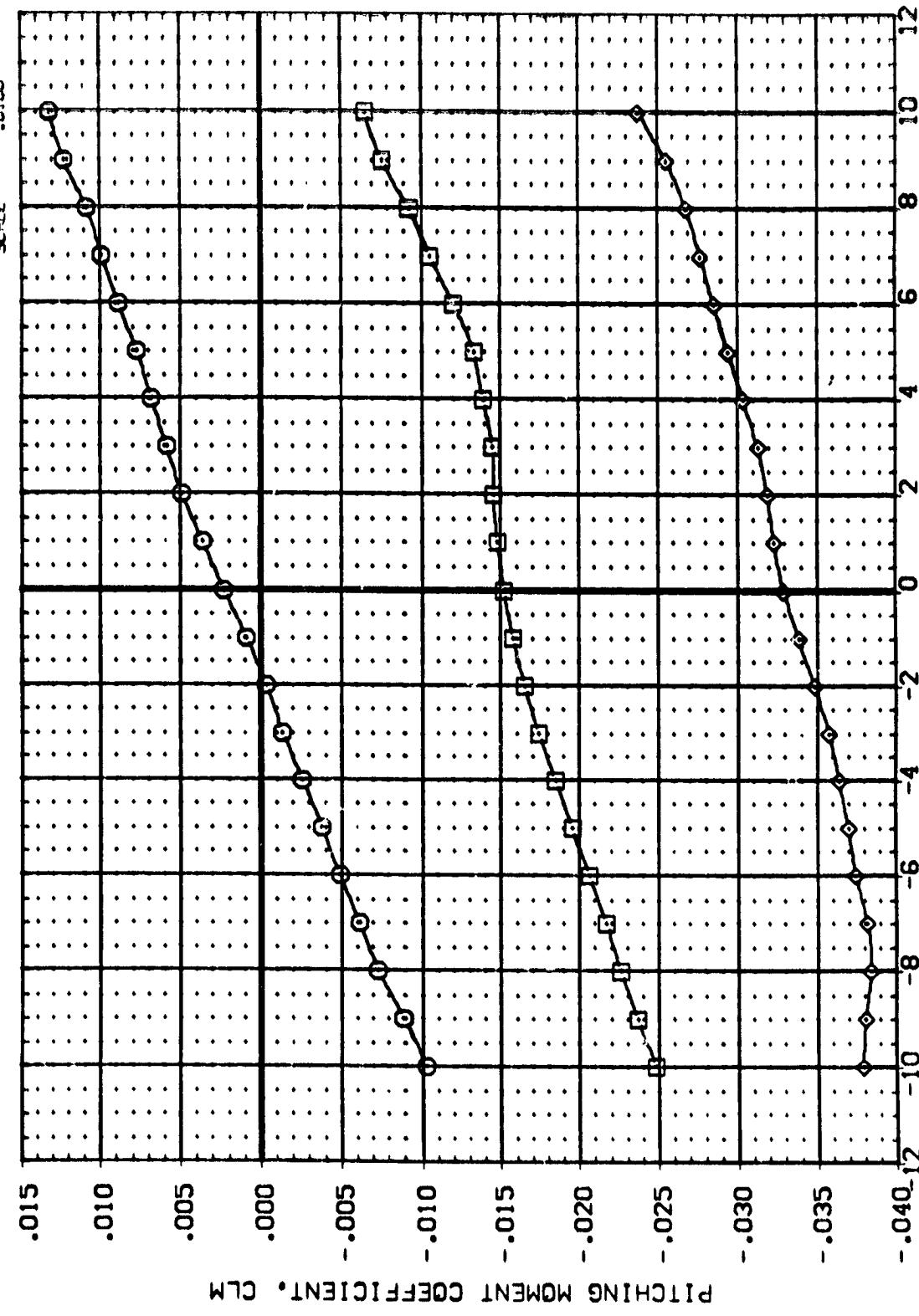


EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 1)  
 (A)MACH = 4.50

DATE 3/5

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL009] AEDC VA-422(IIA-57) ORB/ET V/RIGHT SRB  
 [STL011] AEDC VA-422(IIA-57) ORB/ET V/RIGHT SRB  
 [STL013] AEDC VA-422(IIA-57) ORB/ET V/RIGHT SRB

REFERENCE INFORMATION  
 SRBF 2600.0000 SD FT.  
 LREF 1250.3000 IN.  
 BREF 1250.3000 IN.  
 MRP 1167.0000 IN.  
 VRF 400.0000 IN.  
 TMRP .0100 IN.

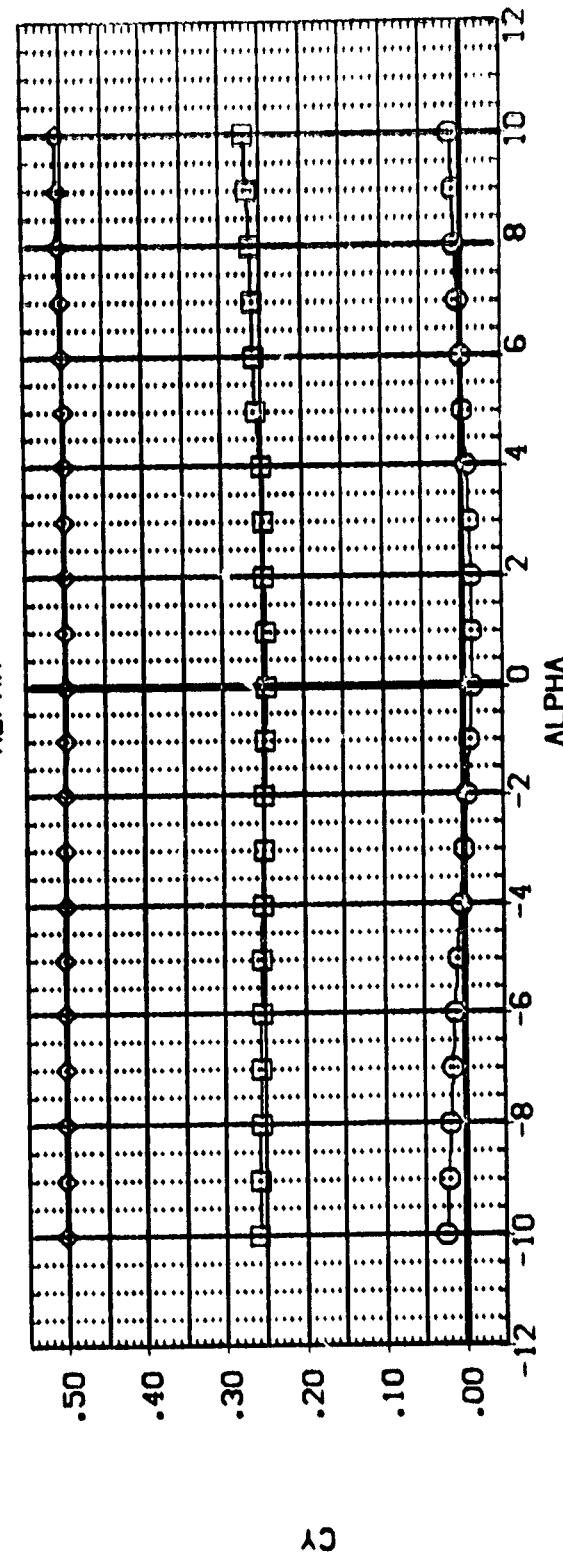
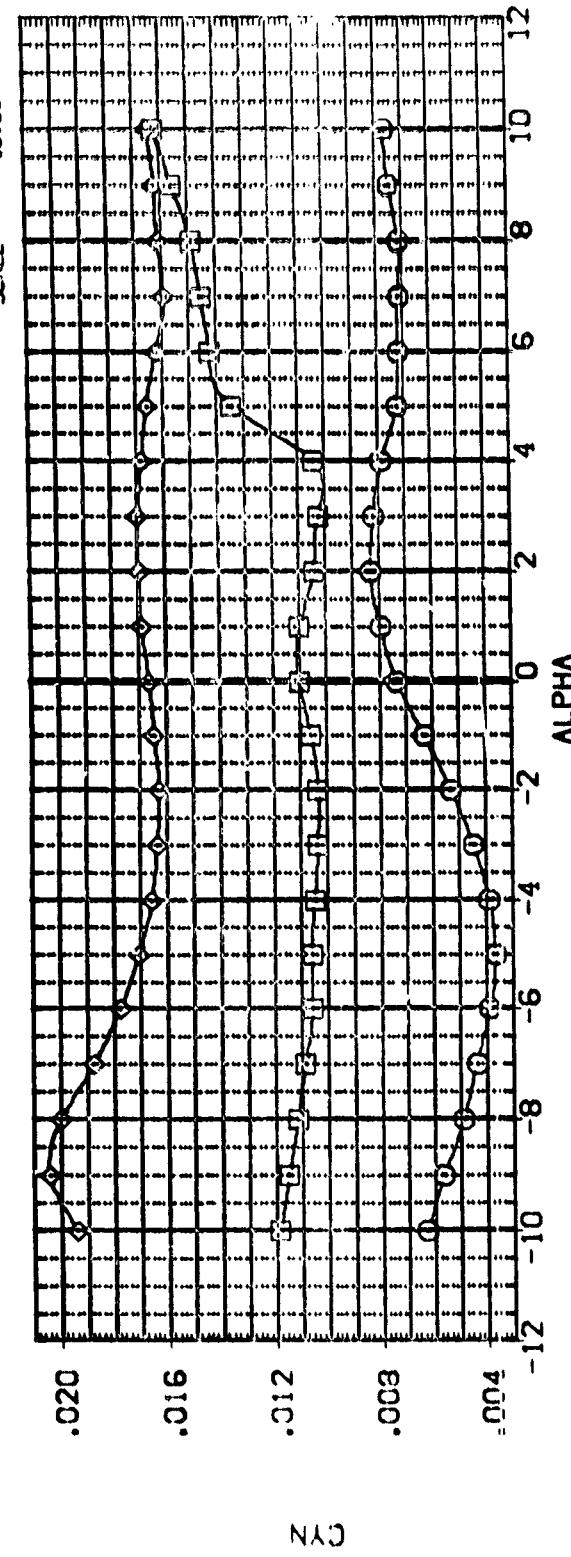


EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 1)  
 (A) MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 {S1,L009} AEDC VA-4221(IA-571). ORB/ET VRIGHT SRB  
 {S1,L011} AEDC VA-4221(IA-571). ORB/ET VRIGHT SRB  
 {S1,L013} AEDC VA-4221(IA-571). ORB/ET VRIGHT SRB

SRPOS RAVL PT-JET BETA  
 .100 1.760 .000 .000 SRBF 2690 .0000 SQ.FT.  
 .100 1.760 750 .000 SRBF 1290 .3000 IN.  
 .100 1.760 1500 .000 SRBF 1290 .3000 IN.  
 VTOP 157 .0000 IN.  
 ZTOP 400 .0000 IN.  
 SCALE .0100



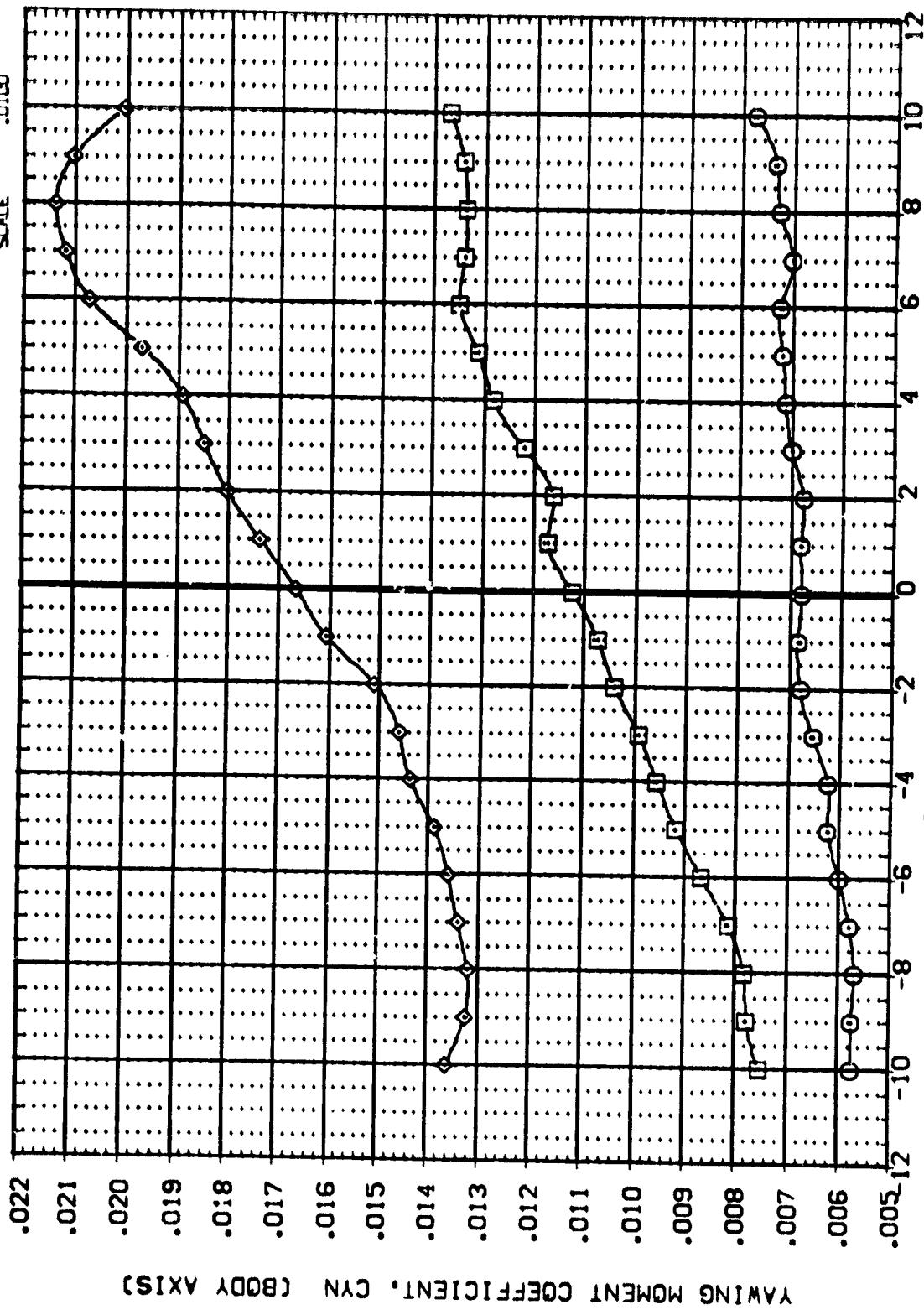
EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 1)

(A)MACH = 4.50

PAGE 3:8

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL010] AEDC VA-422(1A-57). ORB/EI V/RIGHT SRB  
 [STL012] AEDC VA-422(1A-57). ORB/EI V/RIGHT SRB  
 [STL014] AEDC VA-422(1A-57). ORB/EI V/RIGHT SRB

DATA INFORMATION  
 ZPOS 100 1.760 .000 .000 SREF 2650.0000 SD.FT.  
 ZPOS 100 1.760 750.000 .000 LREF 1250.3000 IN.  
 ZPOS 100 1.760 1500.000 .000 BREF 1250.3000 IN.  
 XRP 1167.0000 IN. YRP 400.0000 IN. ZS 15  
 ZRP .0100 IN. SCALE .0100



EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 1)

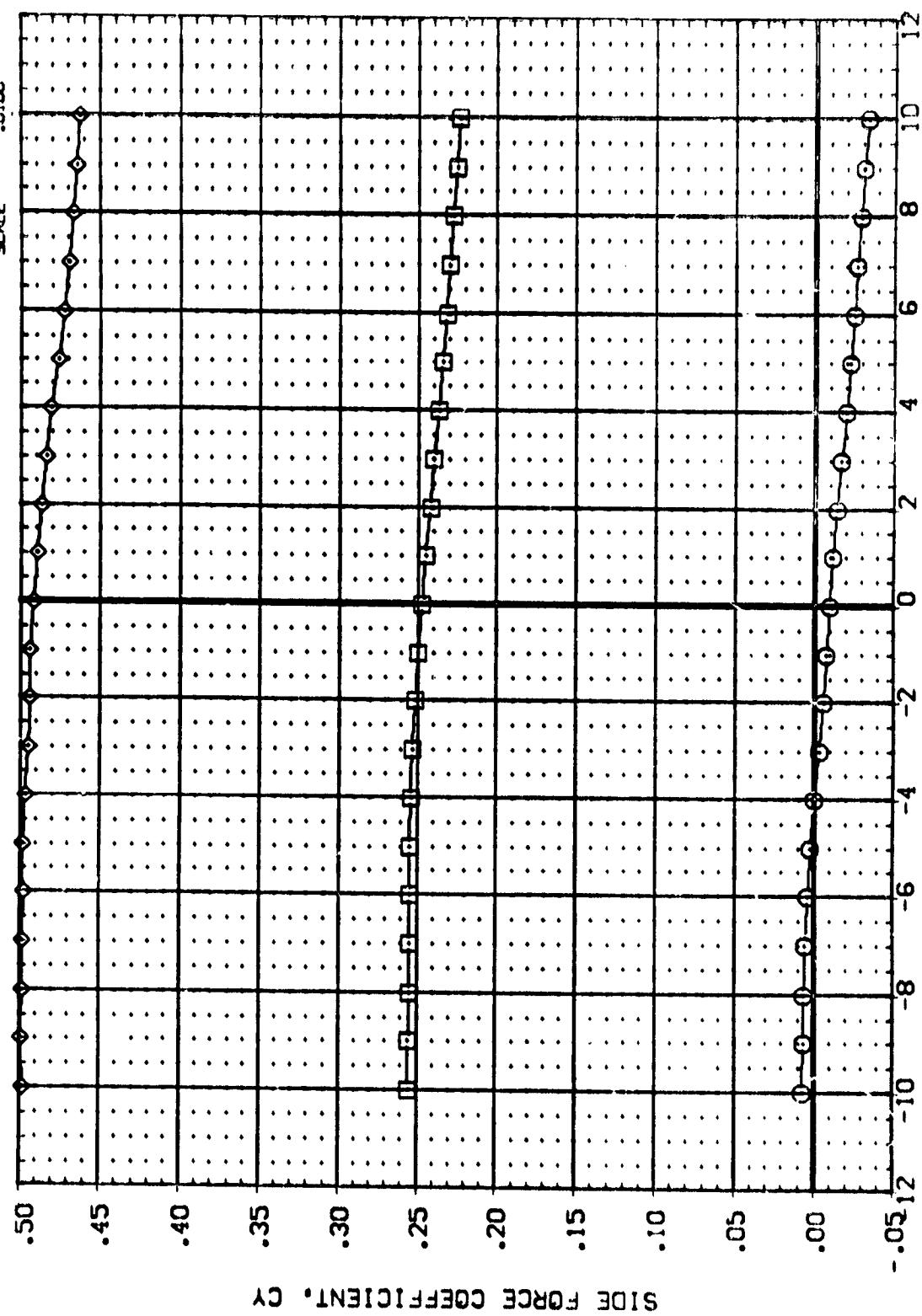
(A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[STLOC10]	AEDC VA-422[IA-57].	GRB/EI V/RIGHT SRB
[STLOC12]	AEDC VA-422[IA-57].	GRB/EI V/RIGHT SRB
[STLOC14]	AEDC VA-422[IA-57].	GRB/EI V/RIGHT SRB

REFL 2690.0000 SD.FT.  
 LREF 1290.3000 IN.  
 BREF 1290.3000 IN.  
 XMRP 1167.0000 IN. XS  
 YRP 480.0000 IN. ZS  
 ZRP -.0100

REFL 2690.0000 SD.FT.  
 LREF 1290.3000 IN.  
 BREF 1290.3000 IN.  
 XMRP 1167.0000 IN. XS  
 YRP 480.0000 IN. ZS  
 ZRP -.0100



EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 1)

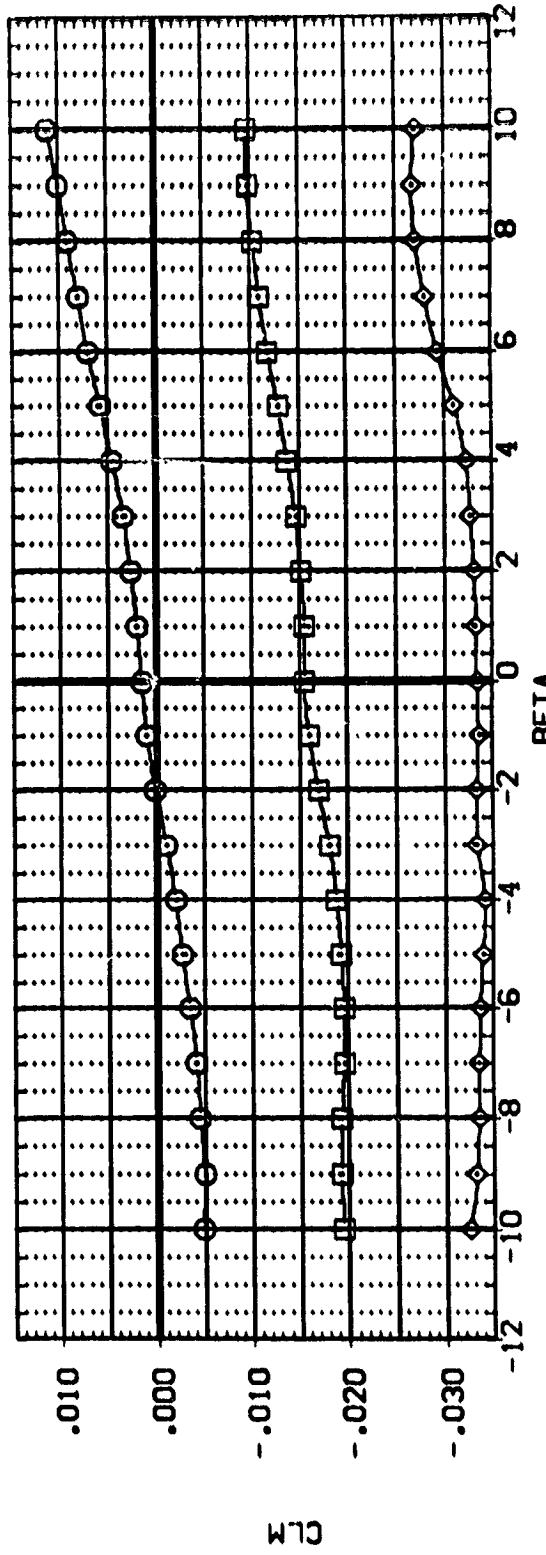
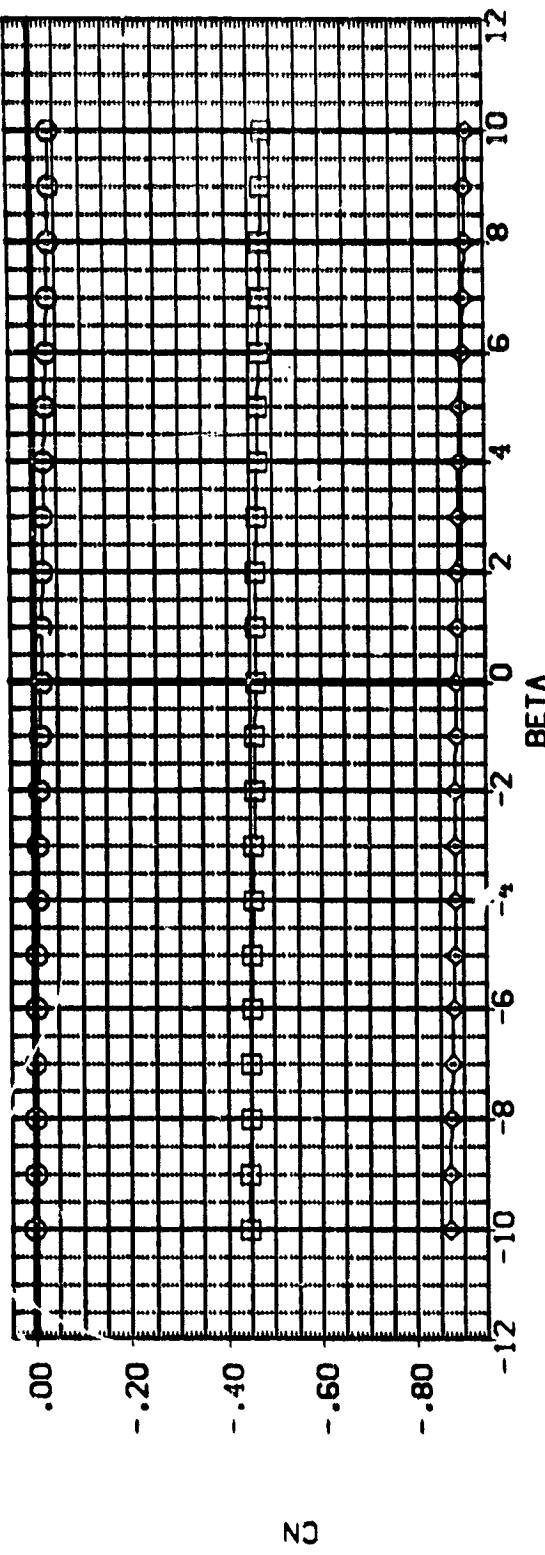
(A)MACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

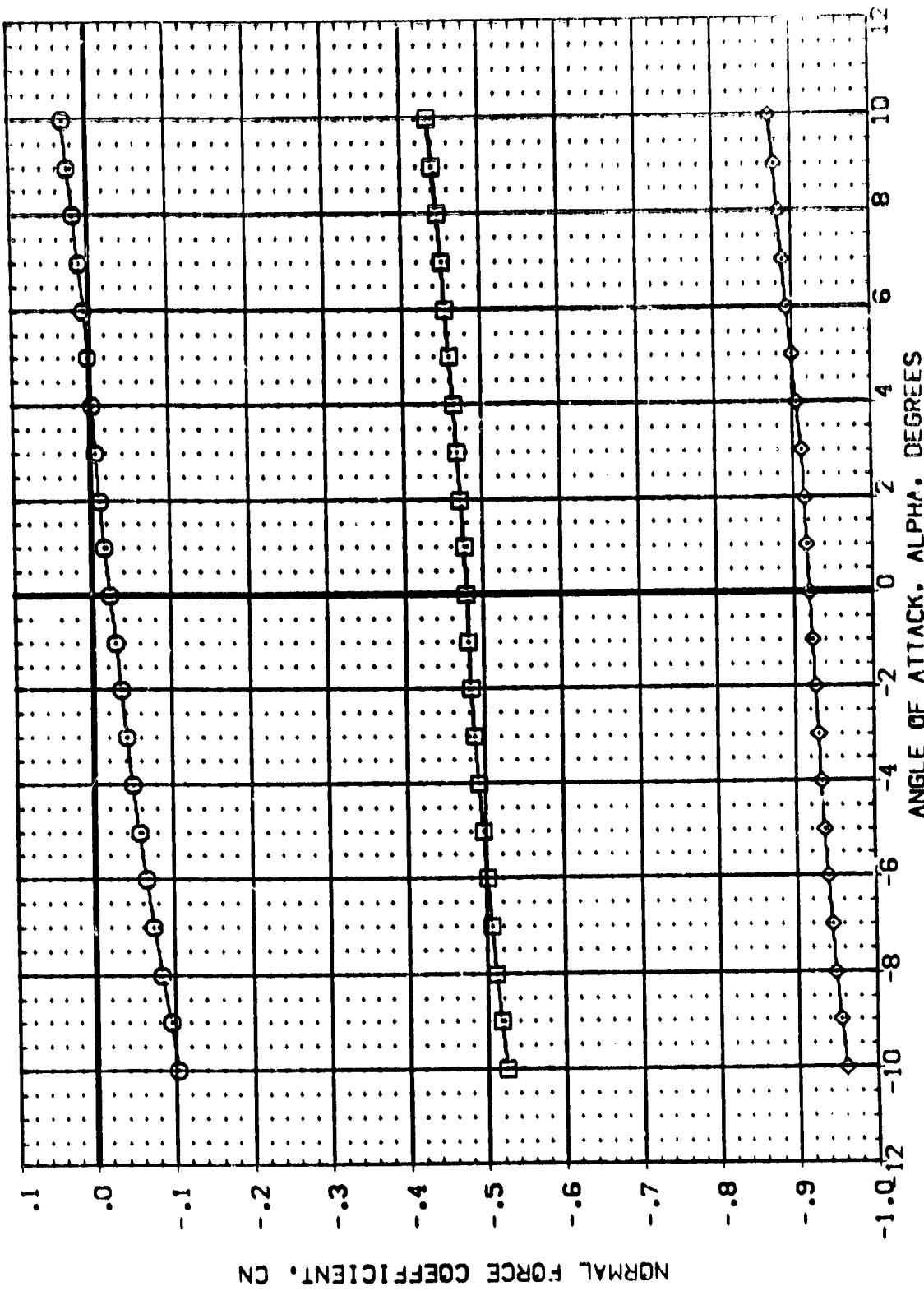
(STL0101)	AEDC	VA-422(IA-S71)	ORB/ET	VRIGHT	SRB
(STL0102)	AEDC	VA-422(IA-S71)	ORB/ET	VRIGHT	SRB
(STL0103)	AEDC	VA-422(IA-S71)	ORB/ET	VRIGHT	SRB
(STL0104)	AEDC	VA-422(IA-S71)	ORB/ET	VRIGHT	SRB

SREF .100 1.760 .000 .000 SREF 2690.0000 SD-FT.  
 LREF .100 1.760 .750 .000 .000 LREF 1290.3000 IN.  
 BREF .100 1.760 1500.000 .000 BREF 1290.3000 IN.  
 NCP .100 1.760 1500.000 .000 NCP 1157.0000 IN.  
 YSP .100 1.760 1500.000 .000 YSP 1000.0000 IN.  
 ZSP .100 1.760 1500.000 .000 ZSP 400.0000 IN.  
 SCALE .2500



EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 1)  
 $(\text{CA})_{\text{MACH}} = 4.50$

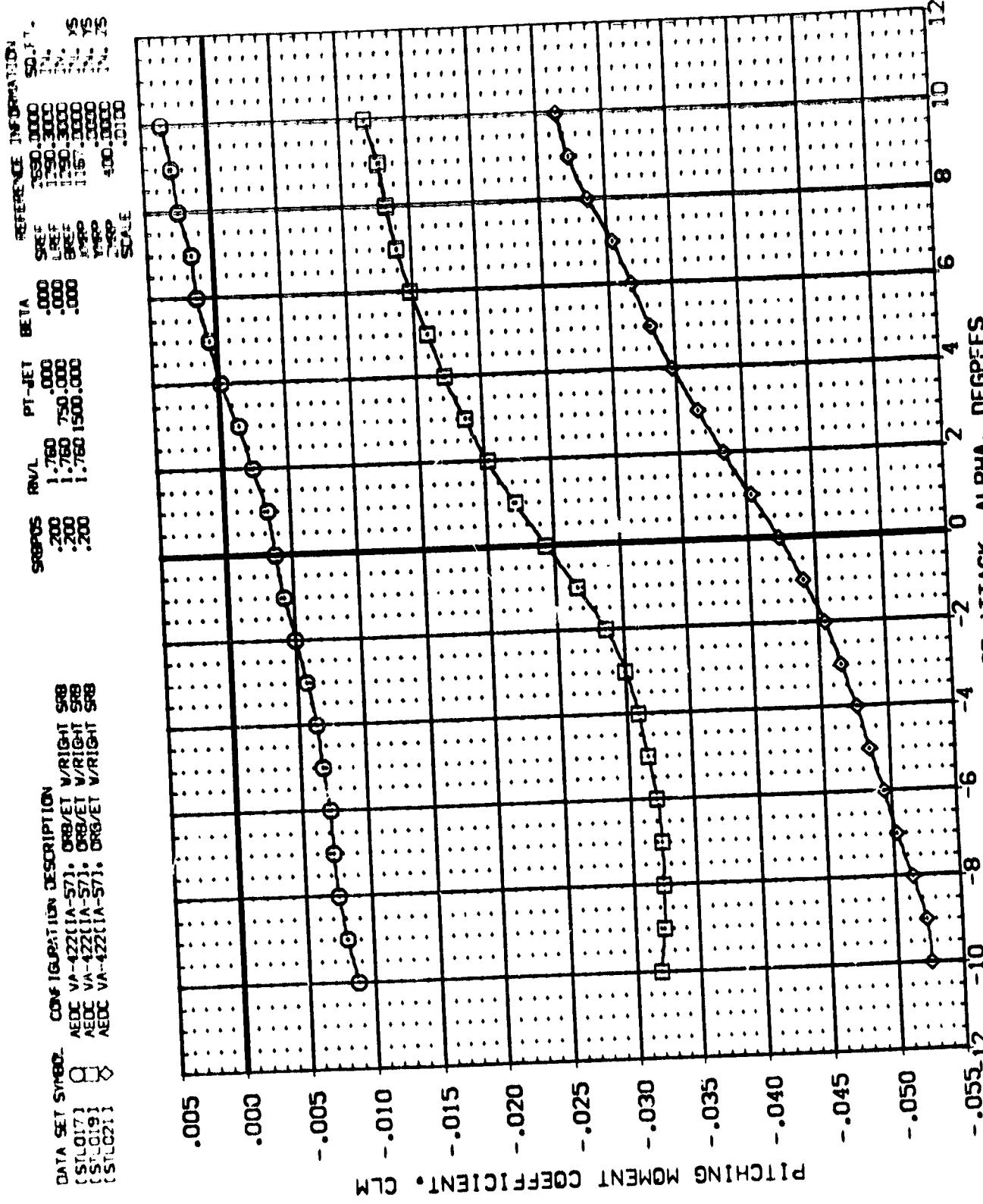
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[STL017]	AEDC VA-4221 [A-571]
[STL018]	AEDC VA-4221 [A-571]
[STL019]	AEDC VA-4221 [A-571]
[STL021]	AEDC VA-4221 [A-571]



## EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 2)

$$[\text{C}_2\text{D}_4\text{NACH}] = 4.50$$

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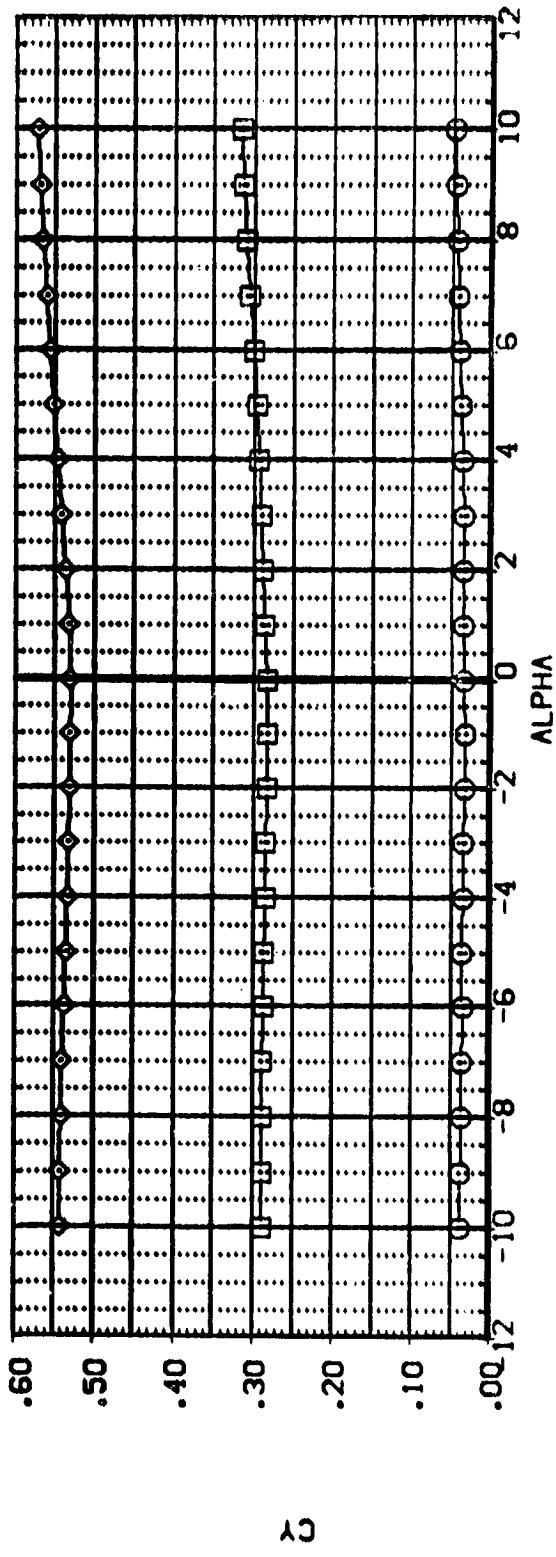
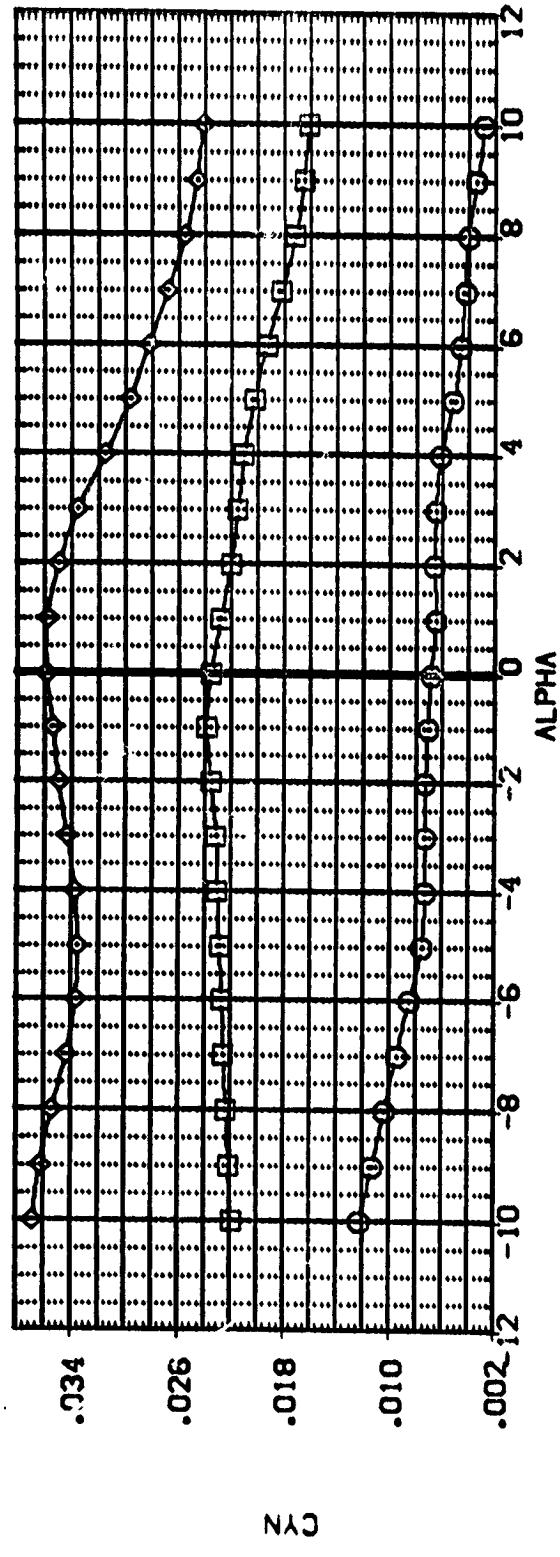
EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 2)

(A) MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(STL0171) AEDC VA-422(AA-571) OBSET VRIGHT SRB  
 (STL019) AEDC VA-422(AA-571) OBSET VRIGHT SRB  
 (STL021) AEDC VA-422(AA-571) OBSET VRIGHT SRB

SRPOS RHO/L PT-JET BETA REFERENCE INFECTION  
 .200 1.760 .000 .000 SPEC 2690.0000 20.51.  
 .200 1.760 790.000 .000 LREF 1290.3000 11.  
 .200 1.760 1500.000 .000 BREF 1290.3000 11.  
 .157 .0000 .000 XREF 1157.0000 11.  
 .799 .0000 .000 YREF 400.0000 11.  
 .0100 SCALE



EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 2)

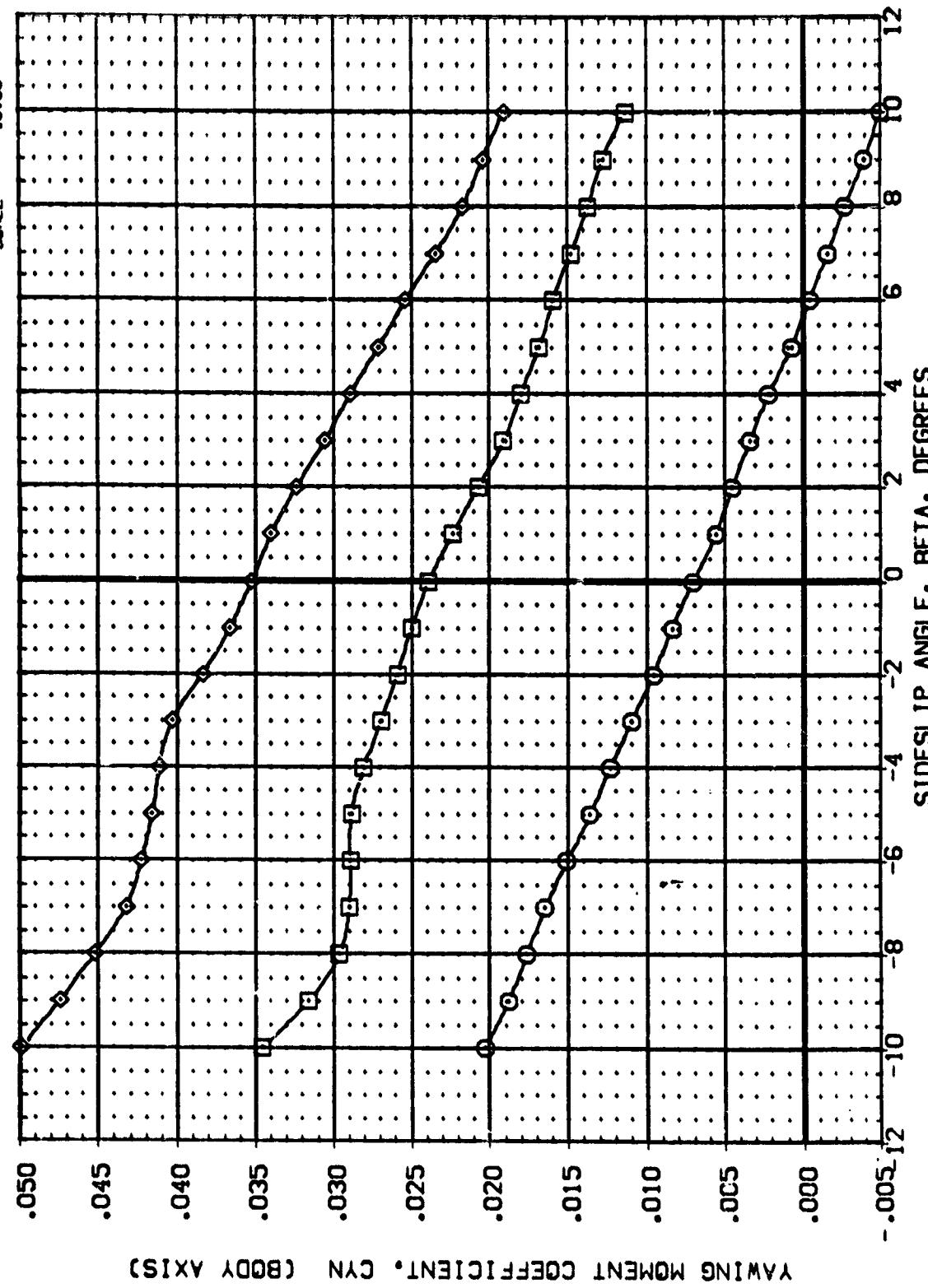
(A) MACH = 4.50

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## DATA SET SYMBOL CONFIGURATION DESCRIPTION

[STL018] ○ AEDC VA-422(A-57) 088/ET V/RIGHT SRB  
 [STL020] □ AEDC VA-422(A-57) 088/ET V/RIGHT SRB  
 [STL022] ◇ AEDC VA-422(A-57) 088/ET V/RIGHT SRB

SRBPOS ROLL PT-JET ALPHA REFERENCE INFORMATION  
 .200 1.760 .000 SREF 2880.0000 50.41.  
 .200 1.760 .750 .000 LREF 1250.3000 1N.  
 .200 1.760 1500.000 BREF 1250.3000 1N.  
 XREF 1167.0000 1N. YS  
 ZREF 400.0000 1N. ZS  
 SCALE .0100



YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

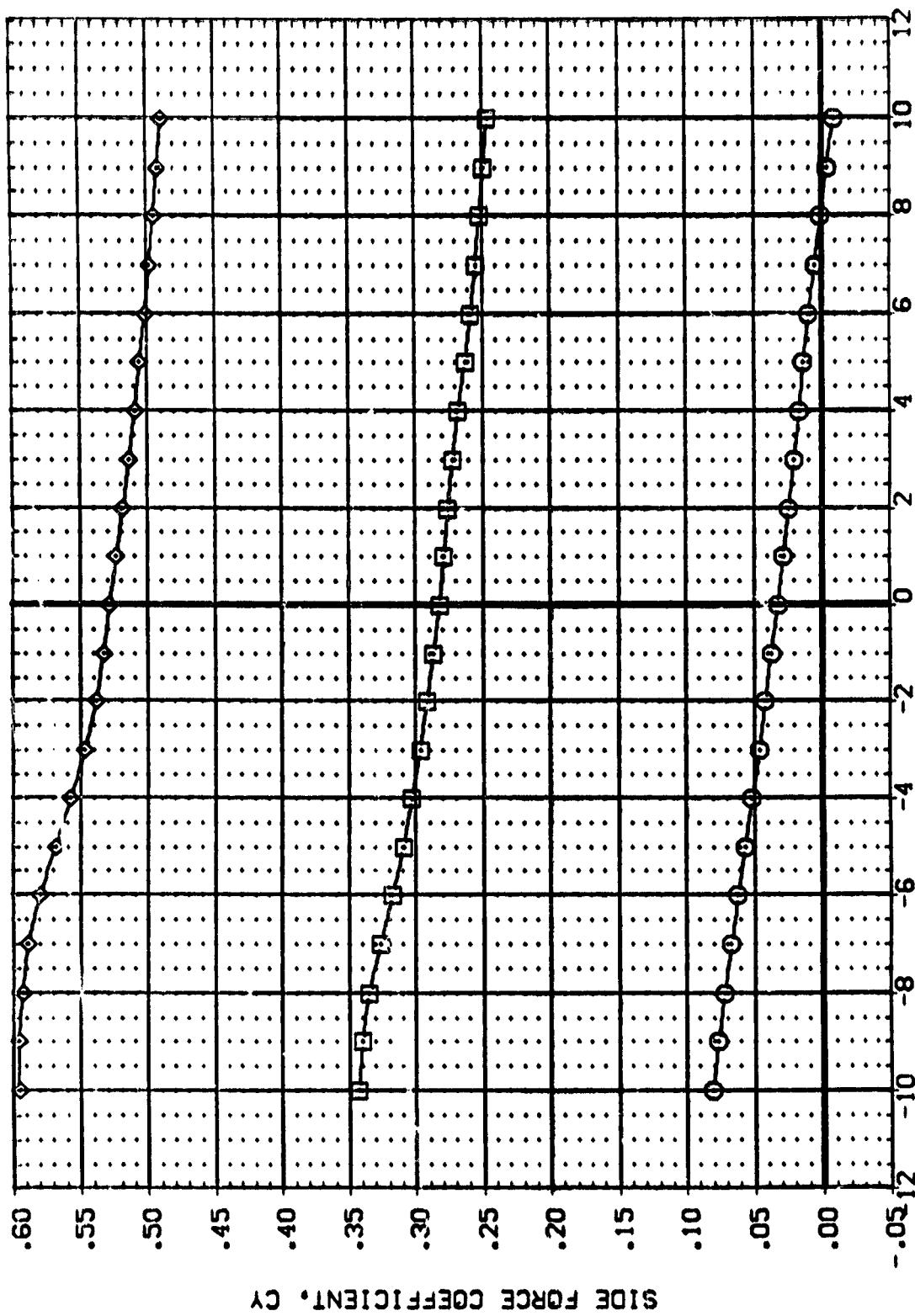
EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 2)

(A) MACH = 4.50

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DATA SET STREAM. CONFIGURATION DESCRIPTION  
 [STL018] AEDC VA-4221(A-571). ORB/ET V/RIGHT SPB  
 [STL020] AEDC VA-4221(A-571). ORB/ET V/RIGHT SPB  
 [STL022] AEDC VA-4221(A-571). ORB/ET V/RIGHT SPB

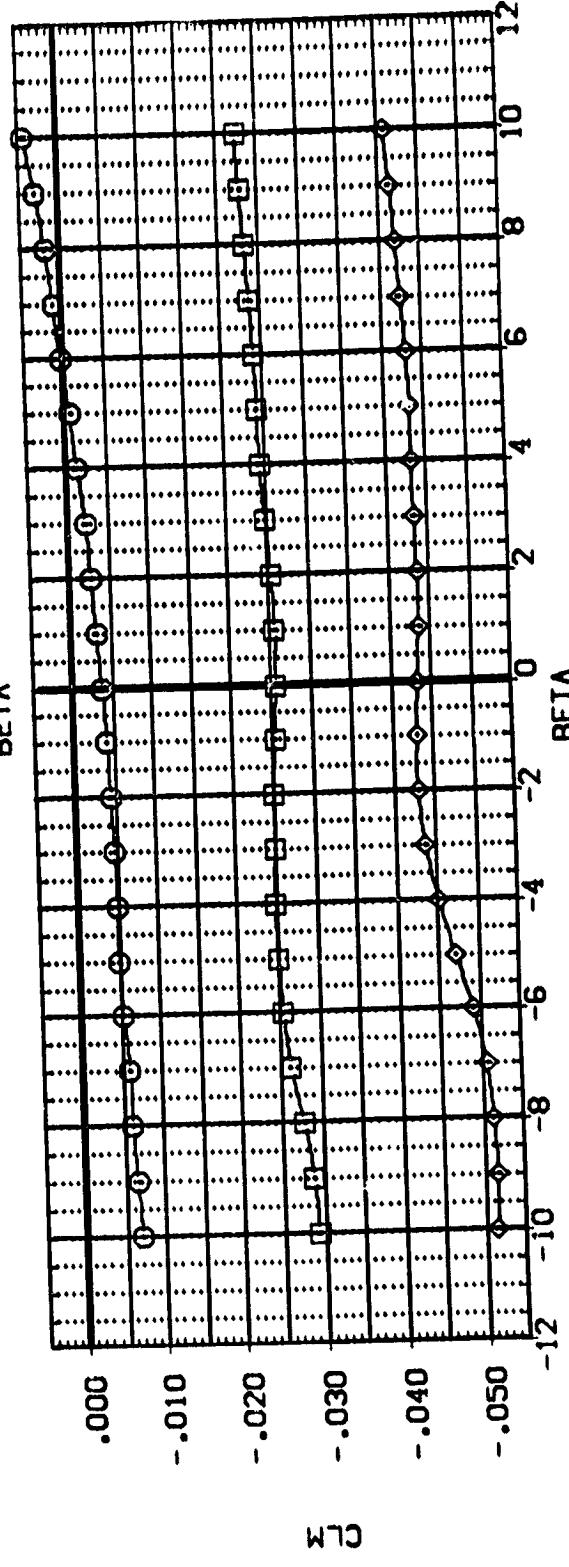
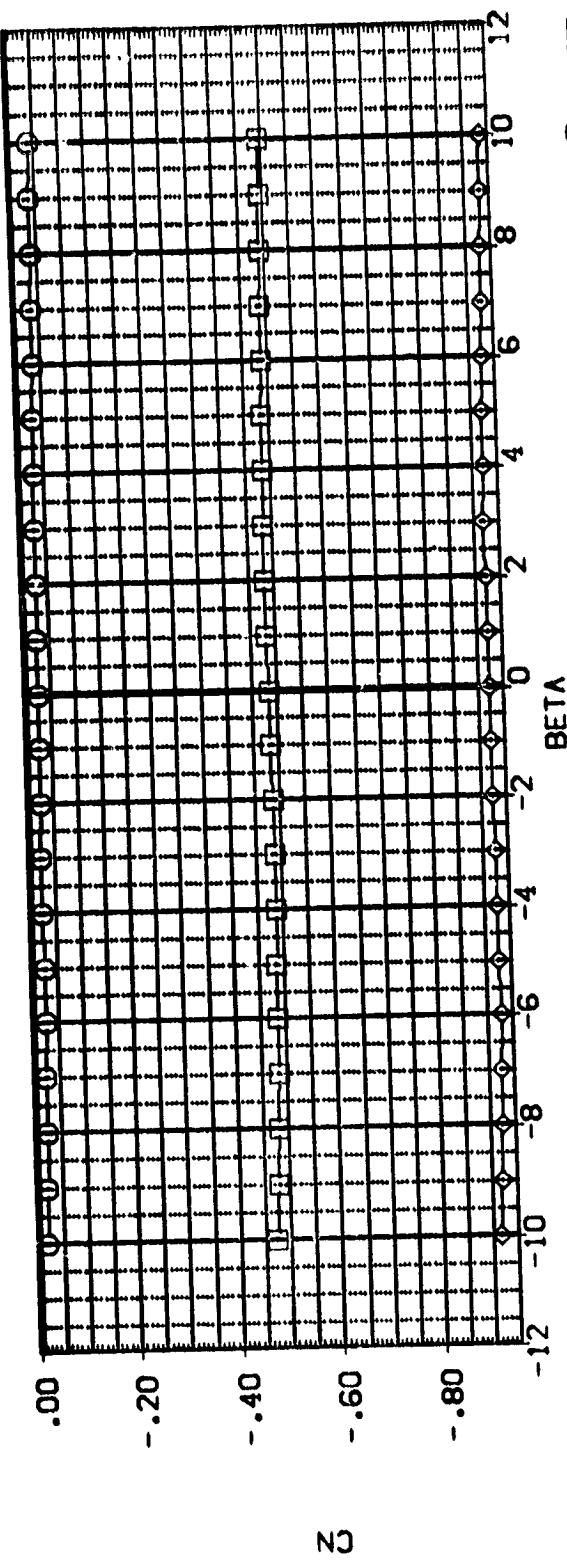
REFERENCE INFORMATION  
 SREF 2690.0000 SQ.FT.  
 LREF 1290.3000 IN.  
 RREF 1290.3000 IN.  
 XREF 1167.0000 IN.  
 YREF .0000 IN.  
 ZREF 400.0000 IN.  
 SCALE .0100



EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 2)  
 (A)MACH = 4.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL019] AEDC VA-4221(A-57) ORB/E/T V/RIGHT SRB  
 [STL020] AEDC VA-4221(A-57) ORB/E/T V/RIGHT SRB  
 [STL022] AEDC VA-4221(A-57) ORB/E/T V/RIGHT SRB

REFERENCE INFORMATION  
 SREF 2890.0000 SD FT.  
 LREF 1290.3000 IN.  
 BREF 1290.3000 IN.  
 XREF 1167.0000 IN.  
 YREF .0000 IN.  
 ZREF 400.0000 IN.  
 SCALE .0100



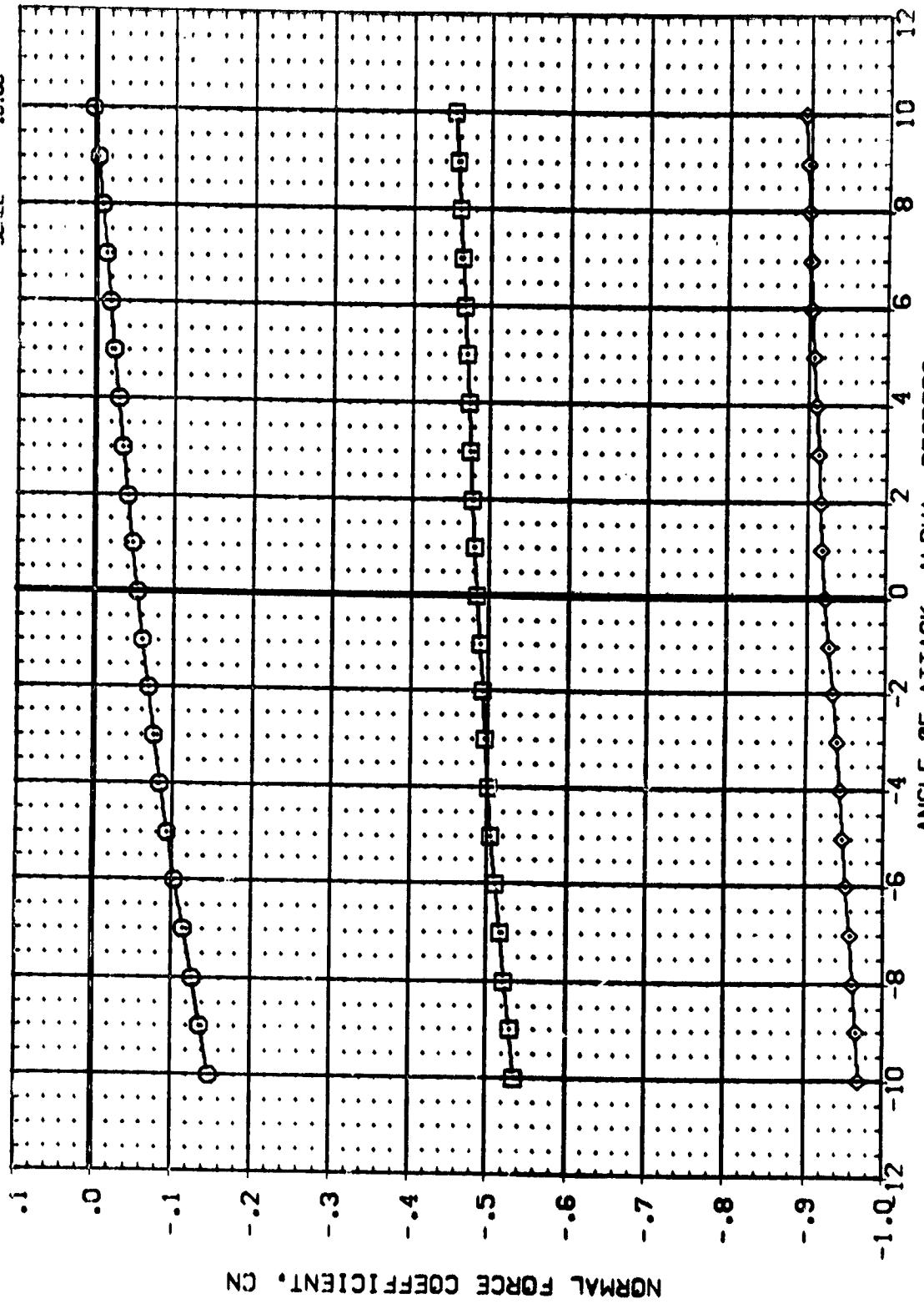
EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 2)

(AJMACH = 4.50

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL025] AEDC VA-422[VA-571] ORB/ET WRIGHT SRB  
 [STL027] AEDC VA-422[VA-571] ORB/ET WRIGHT SRB  
 [STL029] AEDC VA-422[VA-571] ORB/ET WRIGHT SRB

SETUPS	RVAL	P1-JET	BETA	REFERENCE INFORMATION
.200	.750	.000	.000	SREF 2650.0000 SD.FT.
.300	.750	.750	.000	LREF 1250.0000 SD.FT.
.300	.750	1500.000	.000	SREF 1250.0000 SD.FT.
				XREF 116.0000 SD.FT.
				YREF 400.0000 SD.FT.
				SCALE .0100



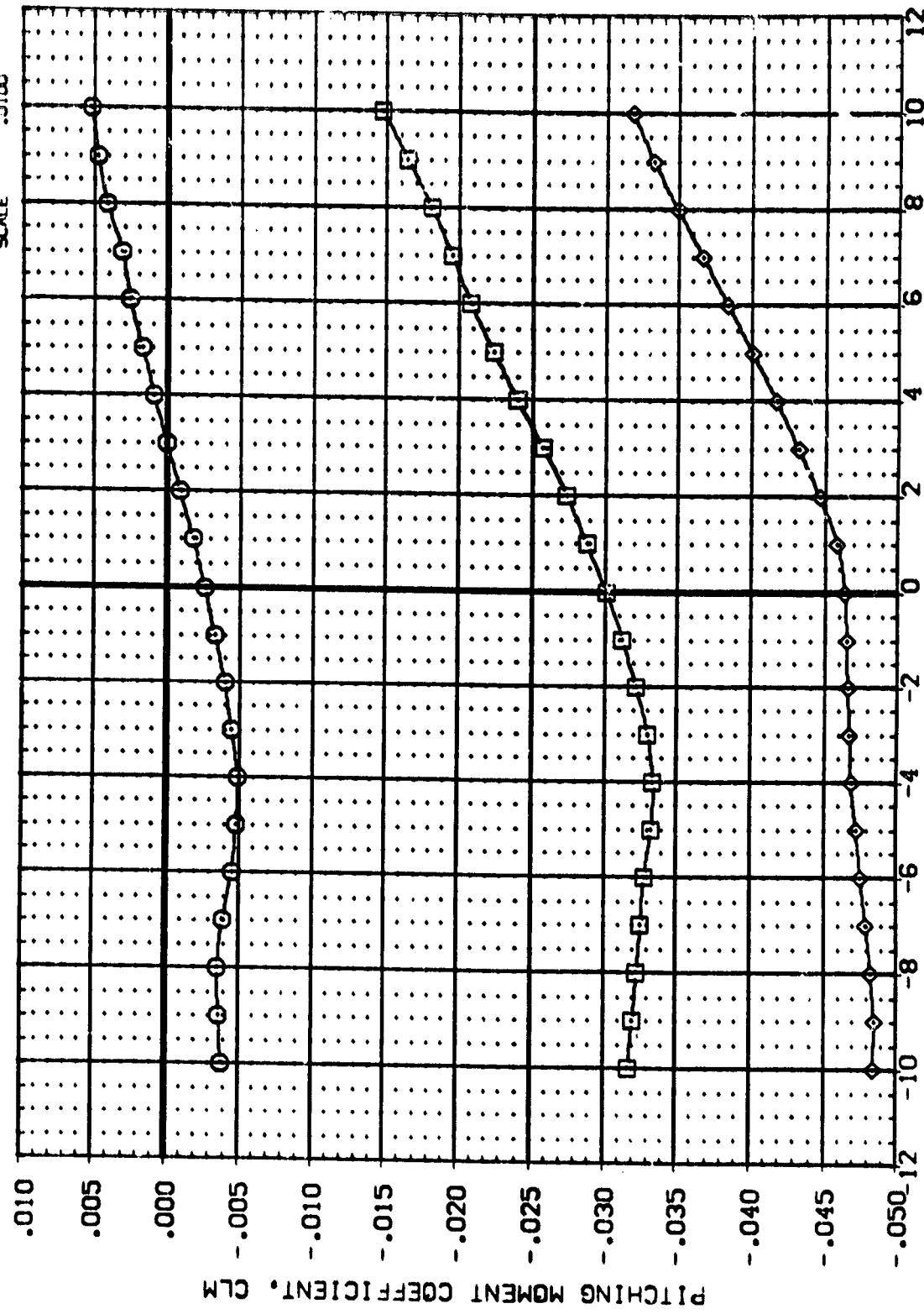
EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 3)  
 (A) MACH = 4.50

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## DATA SET SYMBOL CONFIGURATION DESCRIPTION

(STL025)	Q	AEDC VA-422(IA-57) ORB/EET V/RIGHT SRB
(STL027)	X	AEDC VA-422(IA-57) ORB/EET V/RIGHT SRB
(STL029)	D	AEDC VA-422(IA-57) ORB/EET V/RIGHT SRB

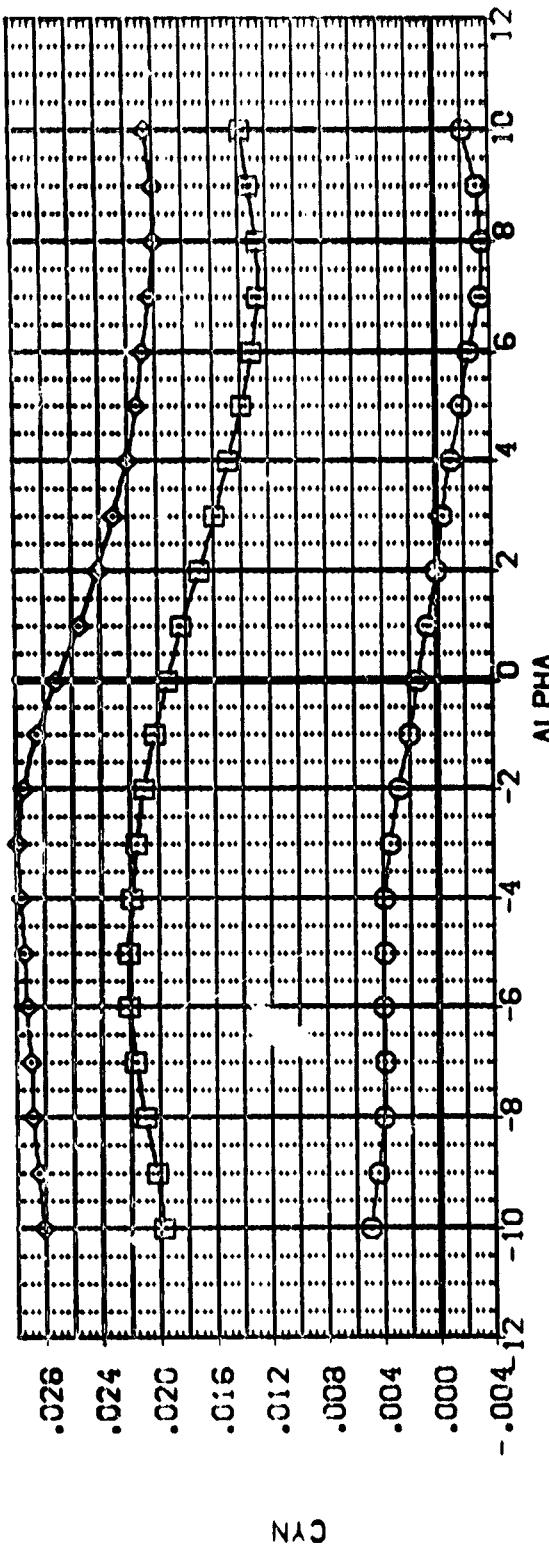
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (STL025) Q AEDC VA-422(IA-57) ORB/EET V/RIGHT SRB  
 (STL027) X AEDC VA-422(IA-57) ORB/EET V/RIGHT SRB  
 (STL029) D AEDC VA-422(IA-57) ORB/EET V/RIGHT SRB



EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 3)

(A) MACH = 4.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[SL025]	AEDC VA-4221[IA-571]
[SL027]	AEDC VA-4221[IA-571]
[SL029]	AEDC VA-4221[IA-571]



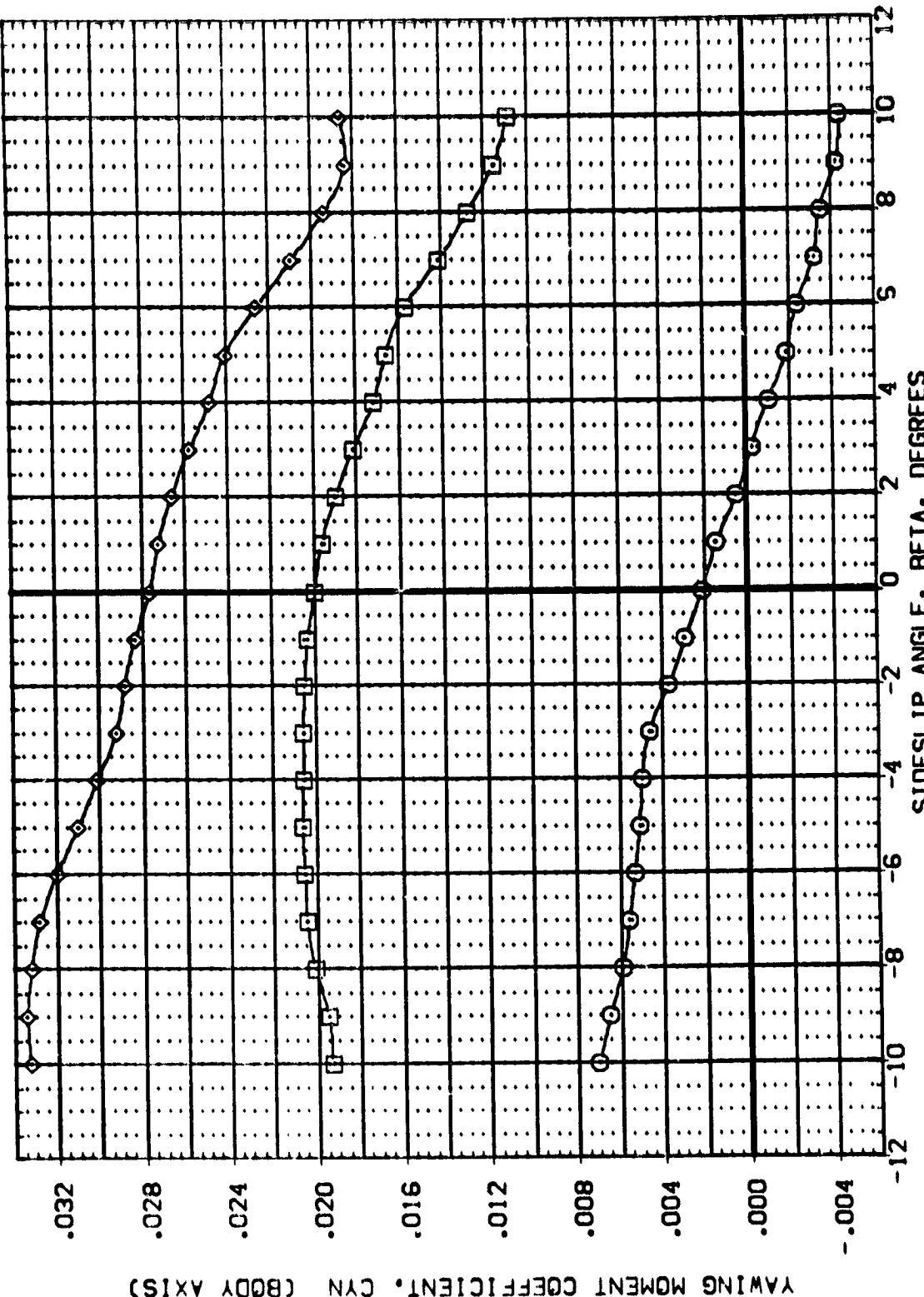
## EFFECT OF ONE SRB AND SRB PLUME ON SRP CHARACTERISTICS (POSITION 3)

$$(\text{Ca})_{\text{MACH}} = 4.50$$

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STL026] O AEDC VA-422([A-57]) OPS/ET V/RIGHT SRB  
 [STL028] □ AEDC VA-422([A-57]) OPS/ET V/RIGHT SRB  
 [STL030] X AEDC VA-422([A-57]) OPS/ET V/RIGHT SRB

SRPOS RNL PT-JET ALPHA REFERENCE INFORMATION  
 .300 1.760 .000 .000 SREF 2690.0000 SC.F.  
 .300 1.760 1500.000 .000 LREF 1290.3000 SC.F.  
 .300 1.760 1500.000 .000 BREF 1290.3000 SC.F.  
 XREF 1167.0000 SC.F.  
 YREF 400.0000 SC.F.  
 ZREF -.0100 SC.F.



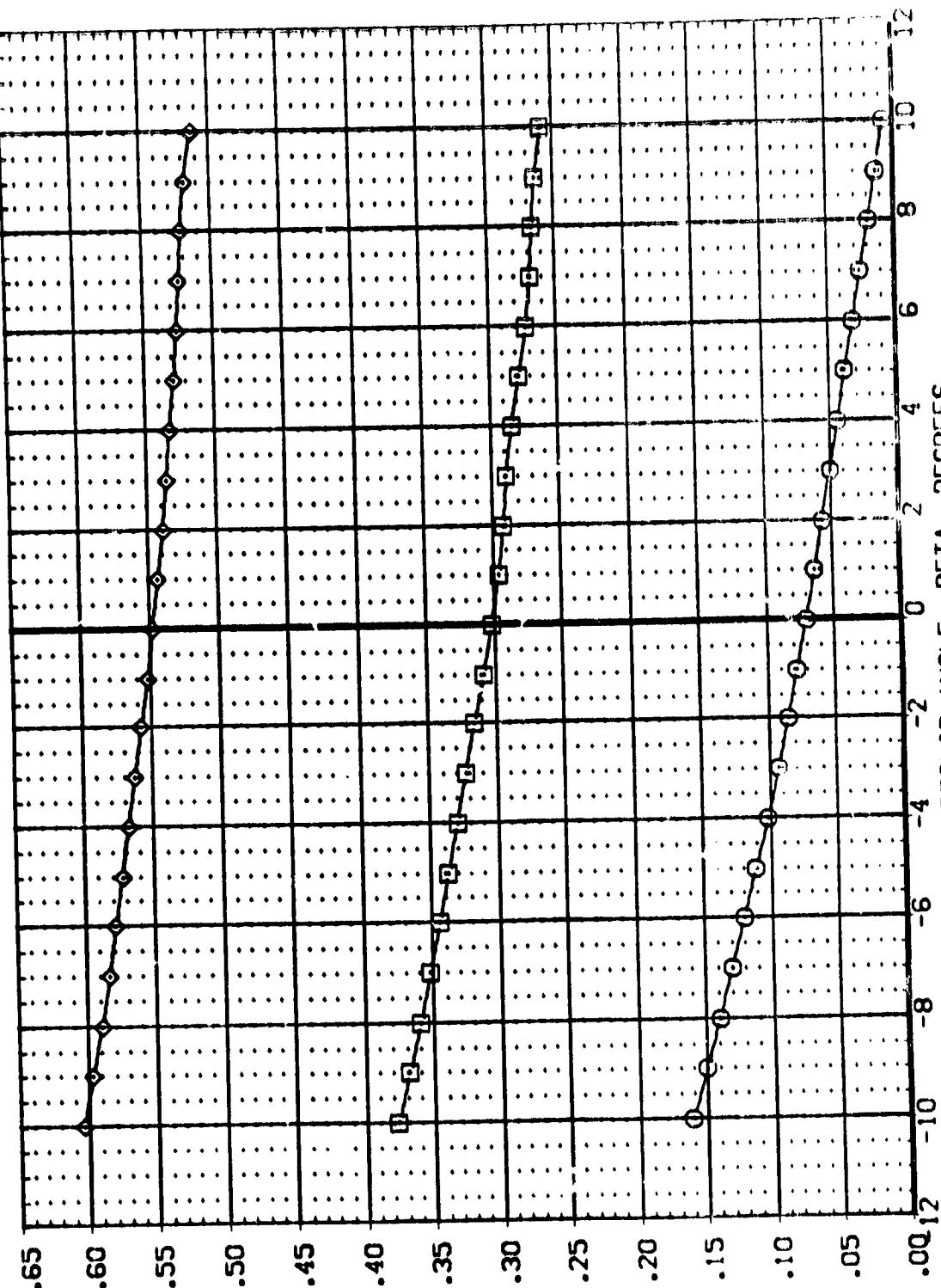
EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 3)

(A) MACH = 4.50

PAGE 331

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [S1026] AEDC VA-422[IA-57]. ORB/ET V/RIGHT SRB  
 [S1028] AEDC VA-422[IA-57]. ORB/ET V/RIGHT SRB  
 [S1030] AEDC VA-422[IA-57]. ORB/ET V/RIGHT SRB

STEP(S)	R/V/L	PT-JET	ALPHA	REFERENCE	INTEGRATION
.300	1.750	.000	.000	SREF	2650.0000 SQ.FT.
.300	1.750	750.000	.000	LREF	1250.3000 IN. S
.300	1.750	1500.000	.000	BREF	1250.3000 IN. S
				XREF	116.0000 IN. S
				YREF	400.0000 IN. S
				ZREF	400.0000 IN. S
				SCALE	.0125



SIDE FORCE COEFFICIENT, C<sub>y</sub>

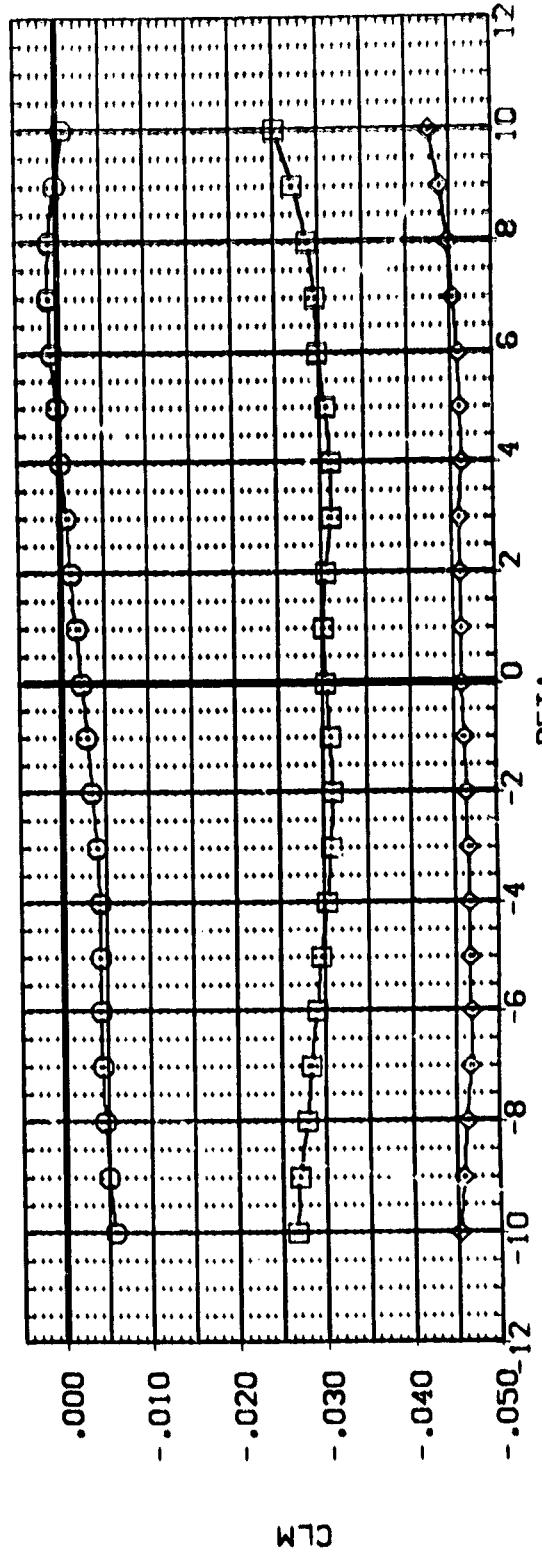
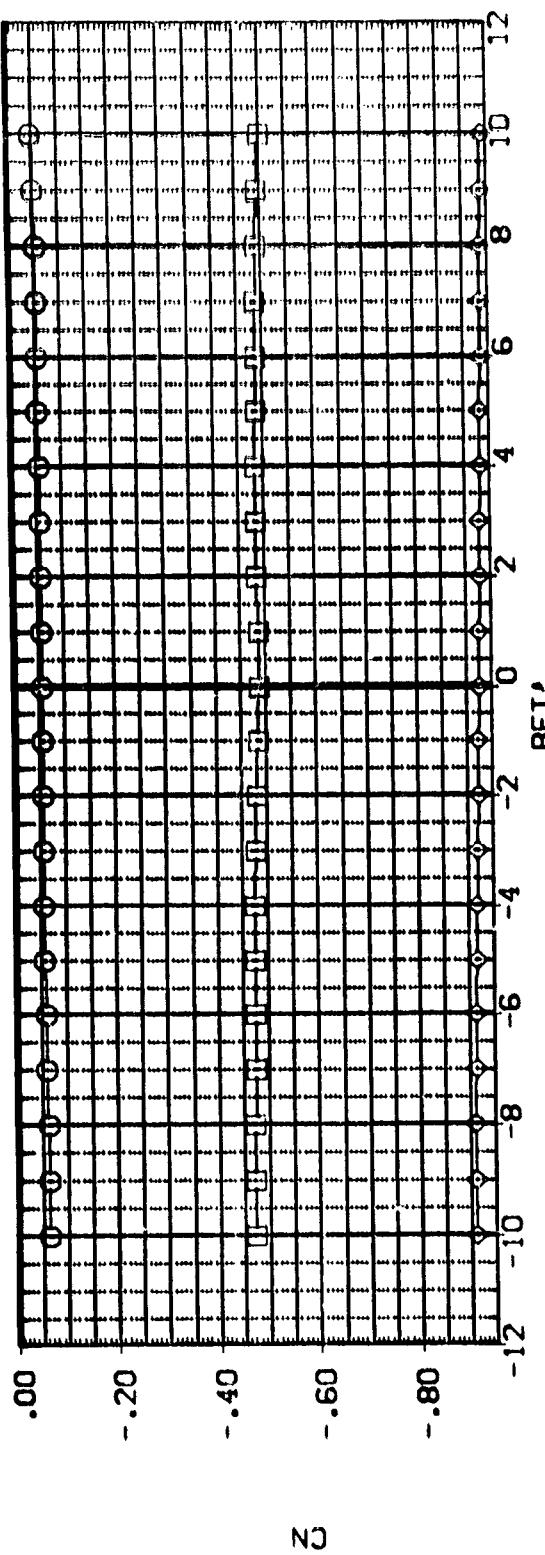
EFFECT OF ONE SRB AND SRB PLUME ON SRB CHARACTERISTICS (POSITION 3)

(A) P.A.C. 4.50

P-31 33.2



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFS	R/V/L	PT-JET	ALPHA	REFERENCE INFORMATION
[STL026]	AEDC VA-422([A-57]), ORBIT V/RIGHT S88	.300	1.760	.000	.000	SREF 789C-0000 SO.F.
[STL028]	AEDC VA-422([A-57]), ORBIT V/RIGHT S88	.300	1.760	.750	.000	LREF 129C-3000
[STL030]	AEDC VA-422([A-57]), ORBIT V/RIGHT S88	.300	1.760	1500.000	.000	SREF 129C-3000



### EFFECT OF ONE SBB AND SBB PTIME ON SBR CHARACTERISTICS (POSITION 3)

COUPON 4.50

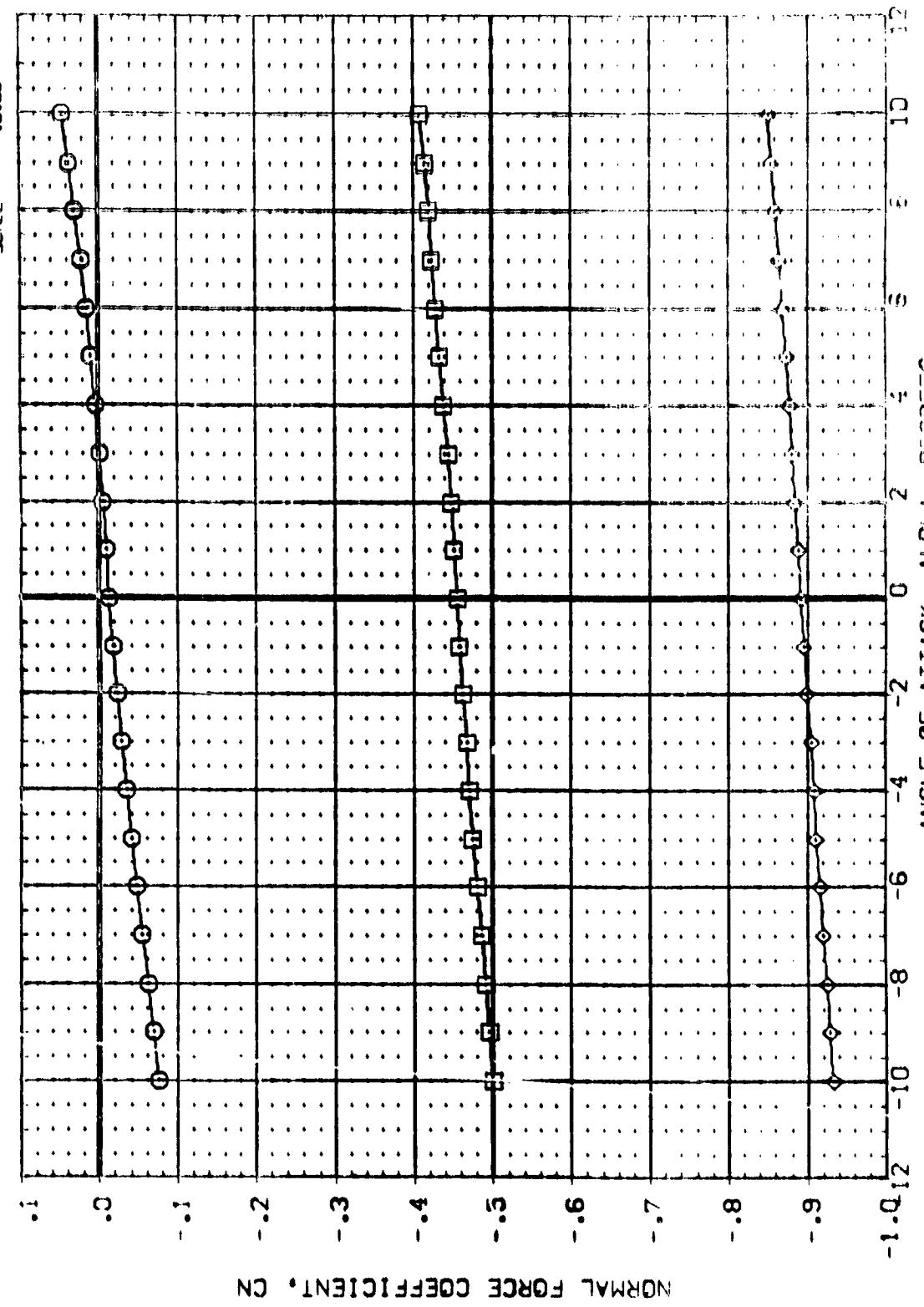
## DATASET SYMBOL CONFIGURATION DESCRIPTION

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(1) ST 34 36  
ST 33 35  
ST 32 34  
ST 31 33  
ST 30 32  
ST 29 31  
ST 28 30  
ST 27 29  
ST 26 28  
ST 25 27  
ST 24 26  
ST 23 25  
ST 22 24  
ST 21 23  
ST 20 22  
ST 19 21  
ST 18 20  
ST 17 19  
ST 16 18  
ST 15 17  
ST 14 16  
ST 13 15  
ST 12 14  
ST 11 13  
ST 10 12  
ST 9 11  
ST 8 10  
ST 7 9  
ST 6 8  
ST 5 7  
ST 4 6  
ST 3 5  
ST 2 4  
ST 1 3  
ST 0 2

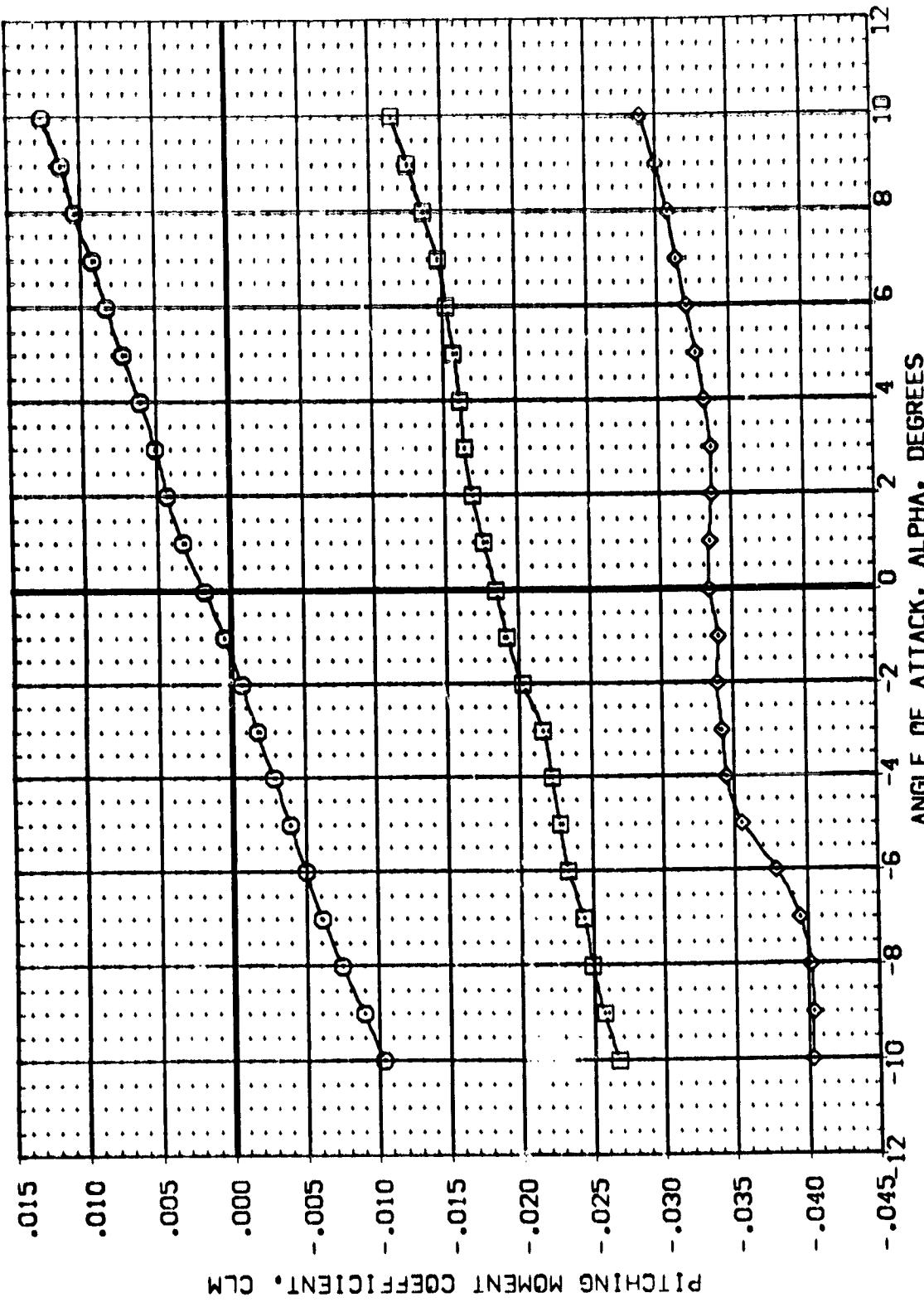
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EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS 6351 12

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[STL034]	AEDC VA-4221(A-571)
[STL035]	AEDC VA-4221(A-571)
[STL036]	AEDC VA-4221(A-571)
[STL037]	AEDC VA-4221(A-571)

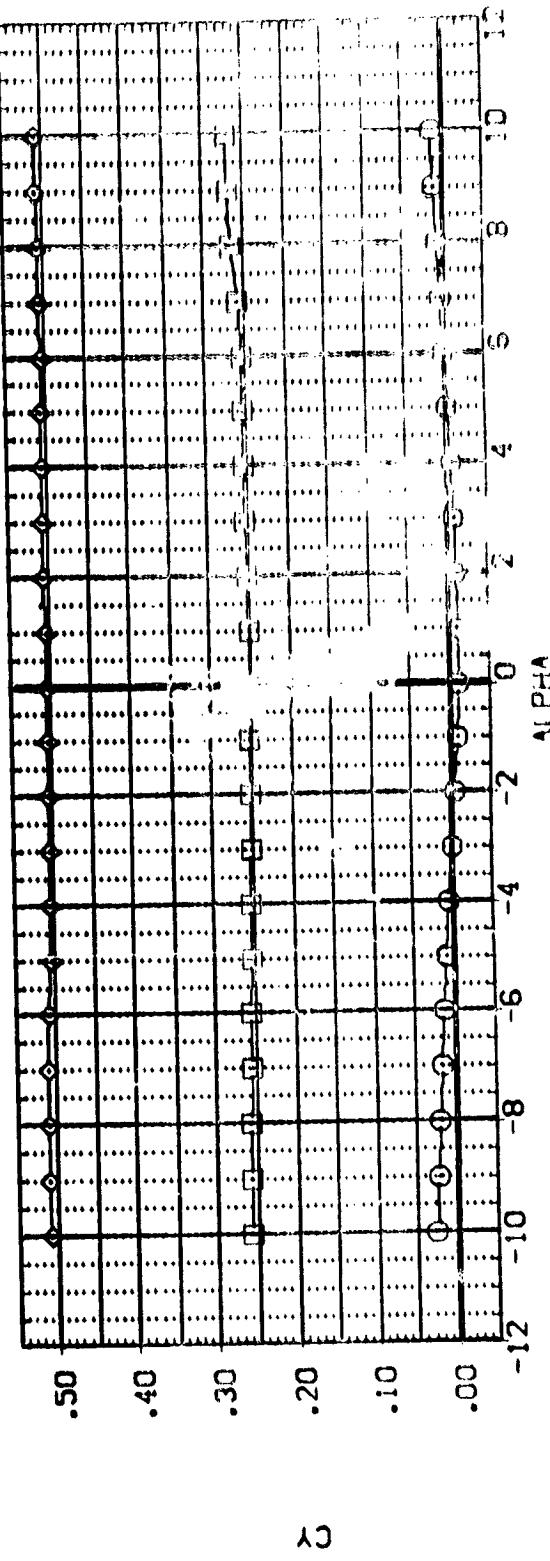
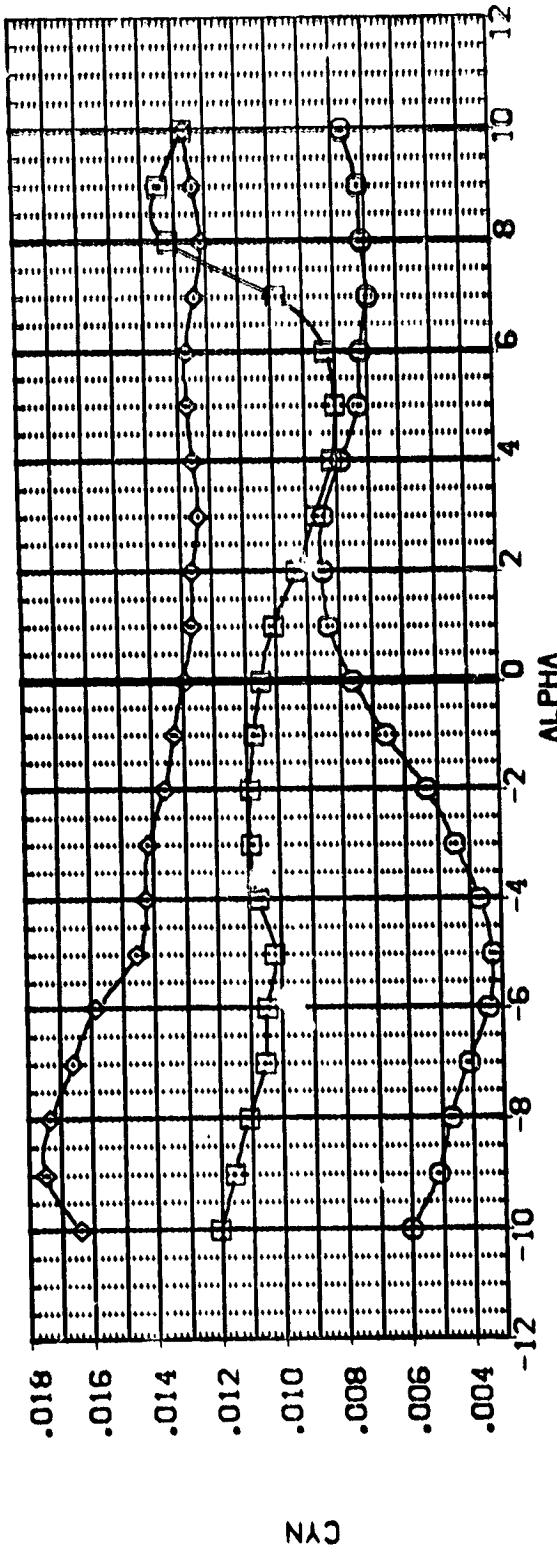


CHARACTERISTICS OF THE CROWN

## EFFECT OF TWO SIGHTS

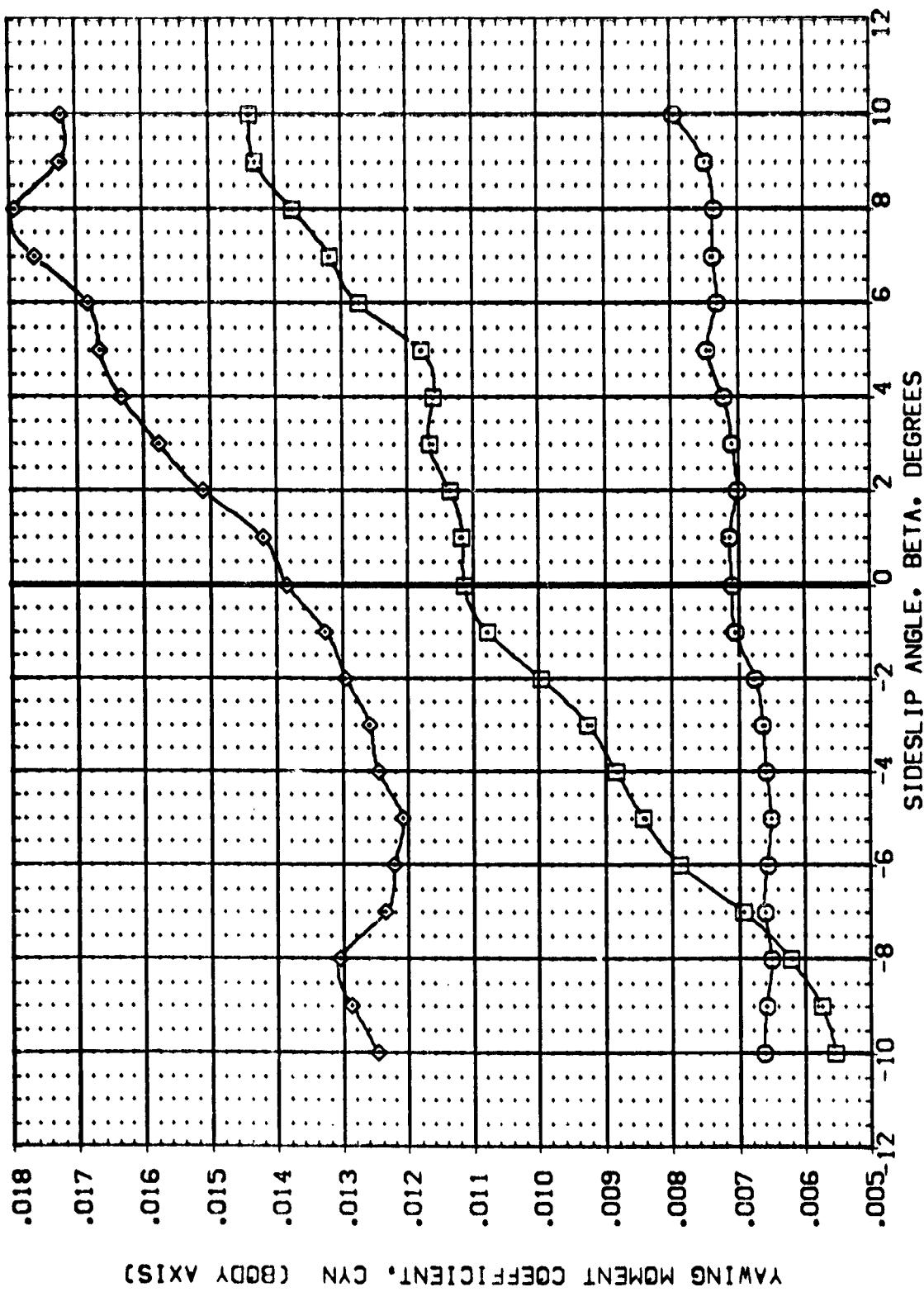
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[STL034]	AEDC VA-4221(V-571)
[STL035]	DB/ET V/60TH SRE
[STL036]	AEDC VA-4221(V-571)
[STL037]	DB/ET V/60TH SRE
[STL038]	AEDC VA-4221(V-571)
[STL039]	DB/ET V/60TH SRE

SEPARATION	SEPARATION	REFERENCE INFORMATION
1.100	PT-JET	SD-FT.
1.100	1.760 .000	280-2000
1.100	1.760 .750 .000	120-3000
1.100	1.760 1.500 .000	120-3000
1.100		167-3000
		2000
		400-3000



EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHAPACOONOCES (CROSS SECTION 1)  
 C<sub>AIR</sub>MACH = 4.50  
 D<sub>PLUME</sub> = 336 mm

DATA SET SYMBOl CONFIGURATION DESCRIPTION  
 (SRBLOSS) AEDC VA-42211A-571; ORB/ET V/BOTH SRB  
 (SRBLoss) AEDC VA-42211A-571; ORB/ET V/BOTH SRB  
 (SRBLoss) AEDC VA-42211A-571; ORB/ET V/BOTH SRB



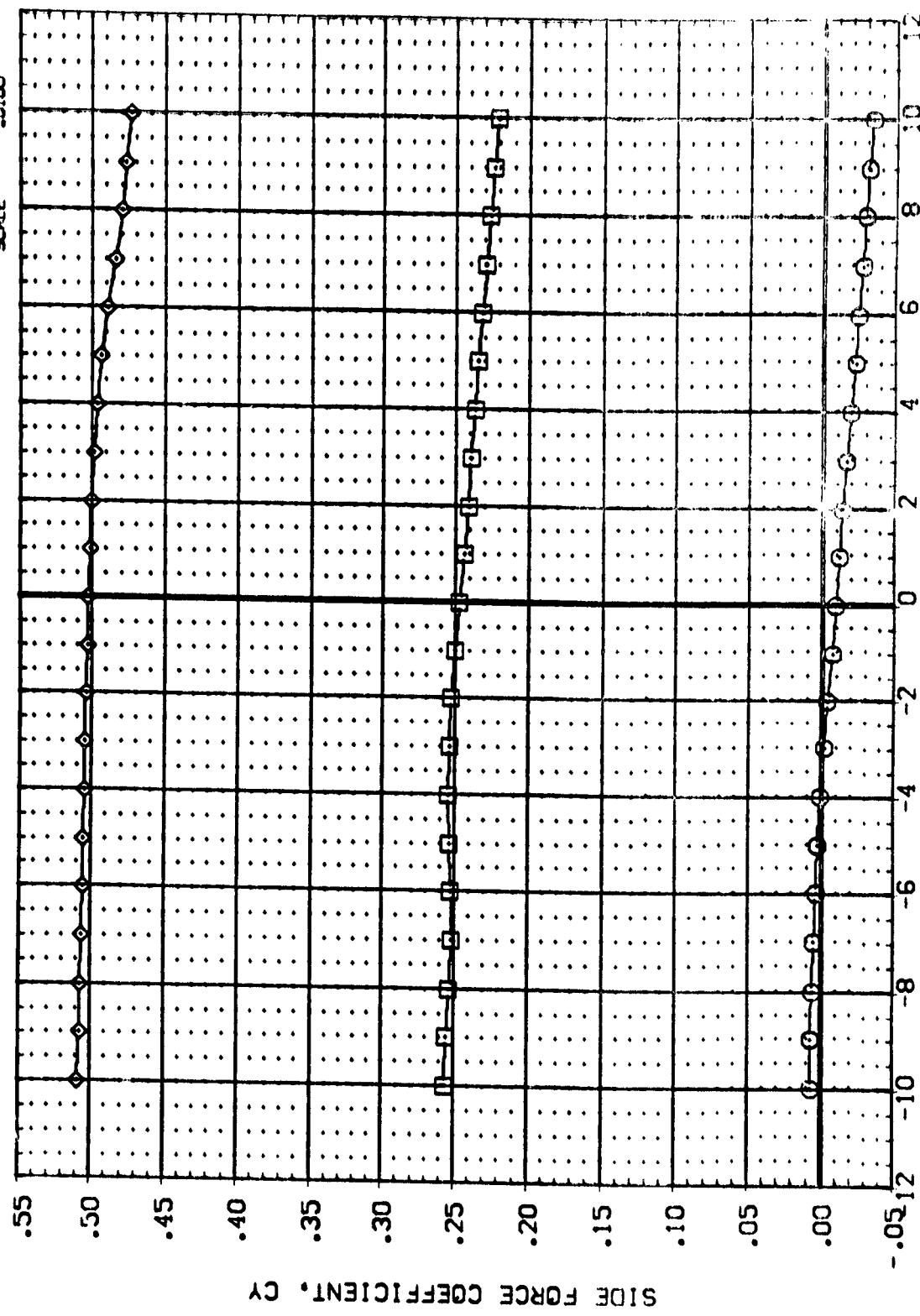
EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 1)

(A) MACH = 4.50

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[STL035]	AEDC VA-4221 [A-57].
[STL037]	AEDC VA-4221 [A-57].
[STL039]	AEDC VA-4221 [A-57].

SREFPOS	R/V/L	PT-JET	ALPHA	REFERENCE INFORMATION	SD.F.
1-100	1.780	.000	.000	SREF	280,000
1-100	1.780	750,000	.000	LREF	1,250,000
1-100	1.780	1500,000	.000	BREF	1,250,000
1-100	1.780	1500,000	.000		



EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 1)

$$(\mu)_{\text{MACH}} = 4.50$$

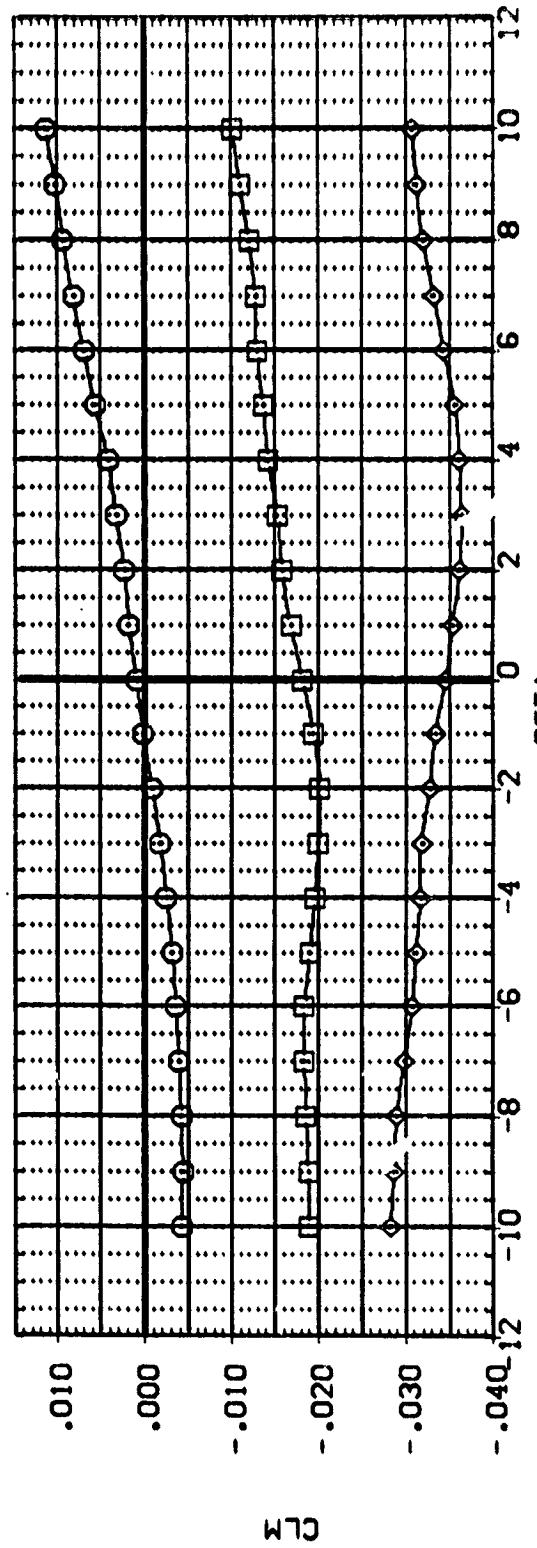
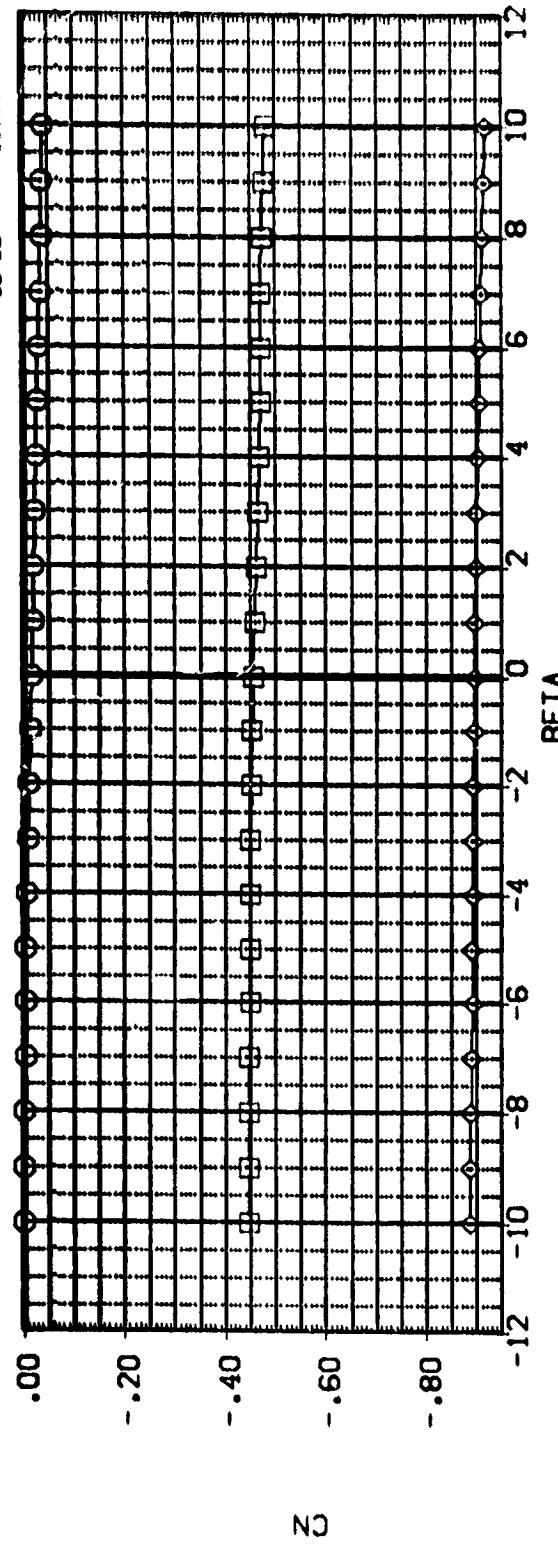
三

## DATA SET SYMBOL CONFIGURATION DESCRIPTION

(S1L035)	○	ORB/ET V/BOTH SRB
(S1L037)	□	AEDC VA-422[IA-57]. ORB/ET V/BOTH SRB
(S1L038)	◇	AEDC VA-422[IA-57]. ORB/ET V/BOTH SRB
		AEDC VA-422[IA-57]. ORB/ET V/BOTH SRB

REFPOS RM/L PT-JET ALPHA REFERENCE INFORMATION

1.100	1.780	.000	SREF	2890.0000	SD.FT.
1.100	1.750	.000	LSRF	1290.3000	IN.
1.100	1.750	.000	SREF	1290.3000	IN.
			XHPP	1.67.0000	IN.
			YHPP	4.00.0000	IN.
			ZHPP	4.00.0000	IN.
			SCALE	.2130	



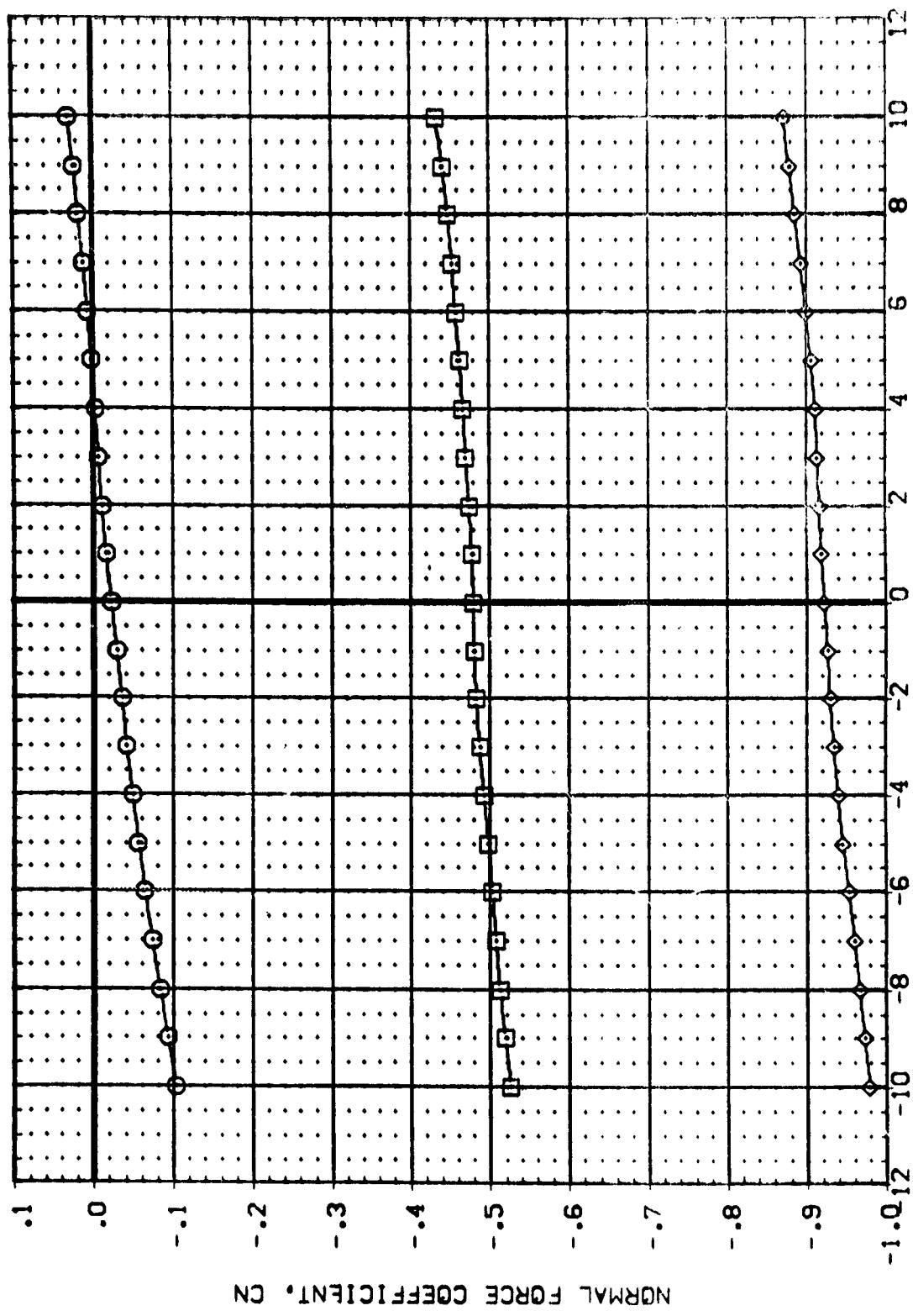
EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 1)

(A) MAC 1.50

2:5: 339

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (S1.045) O AEDC VA-422(IA-57). DRB/ET V/BOTH SRB  
 (S1.047) □ AEDC VA-422(IA-57). DRB/ET V/BOTH SRB  
 (S1.049) ◊ AEDC VA-422(IA-57). DRB/ET V/BOTH SRB

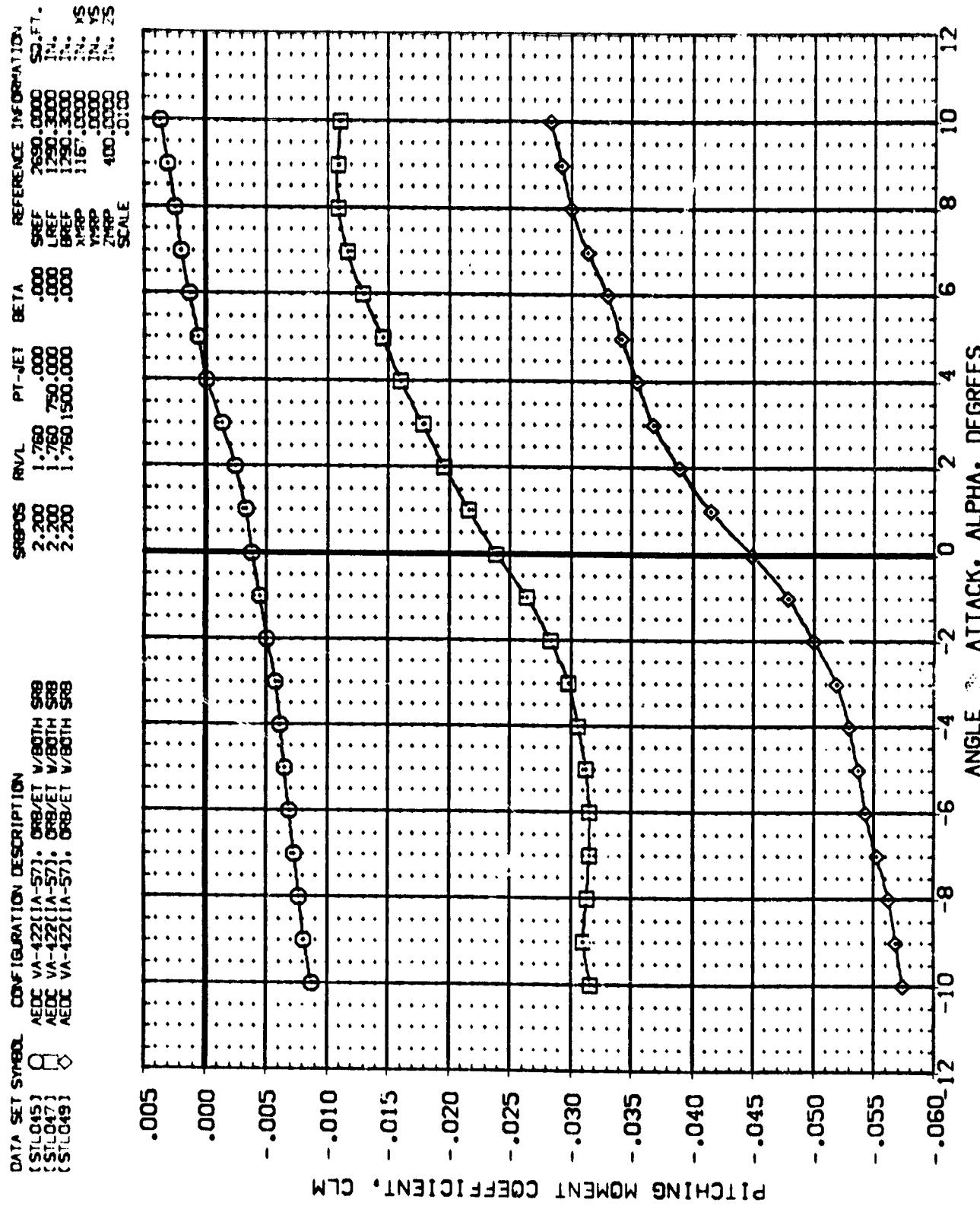
SRBPOS RSVN. PT-SET BETA REFERENCE INFORMATION  
 2.200 1.760 .000 SREF 2690.0000 SD.FT.  
 2.200 1.760 .750 .000 LREF 1250.0000 IN.  
 2.200 1.760 1500.000 .000 BREF 1290.0000 IN.  
 XMRP 1.67.0000 IN.  
 YMRP 400.0000 IN.  
 ZMRP .0000 IN.  
 SCALE .0150



EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 2)

CROSS MACH = 4.50

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EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 2)

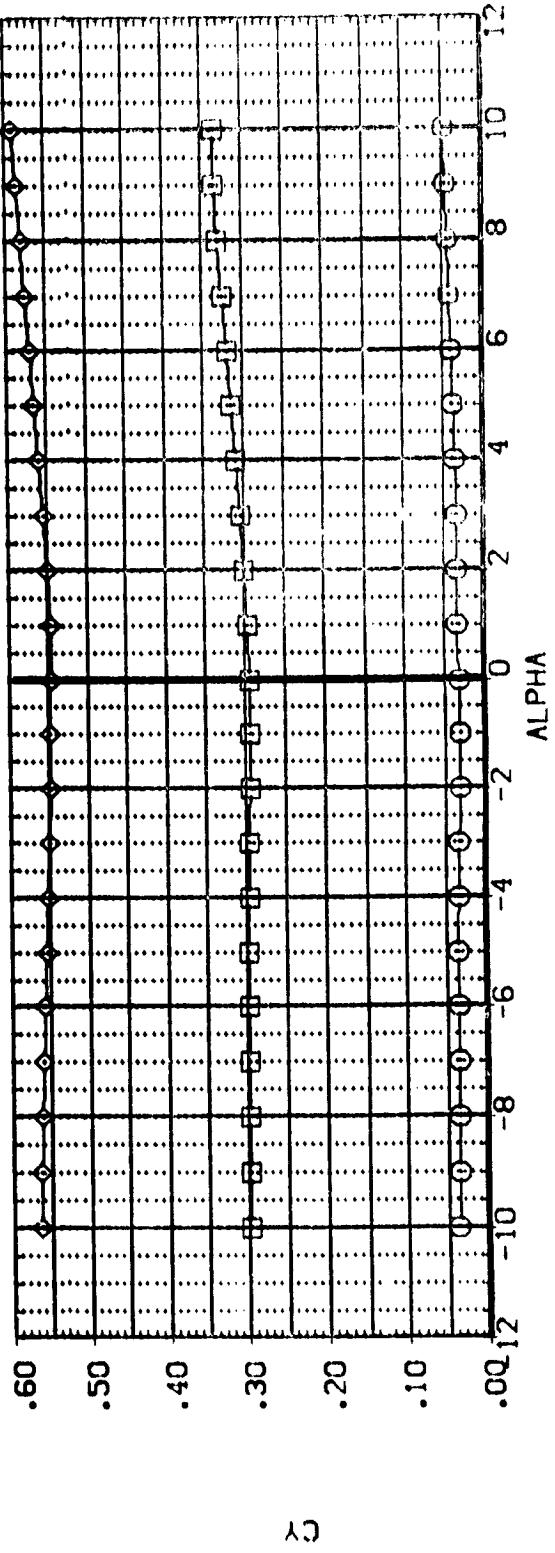
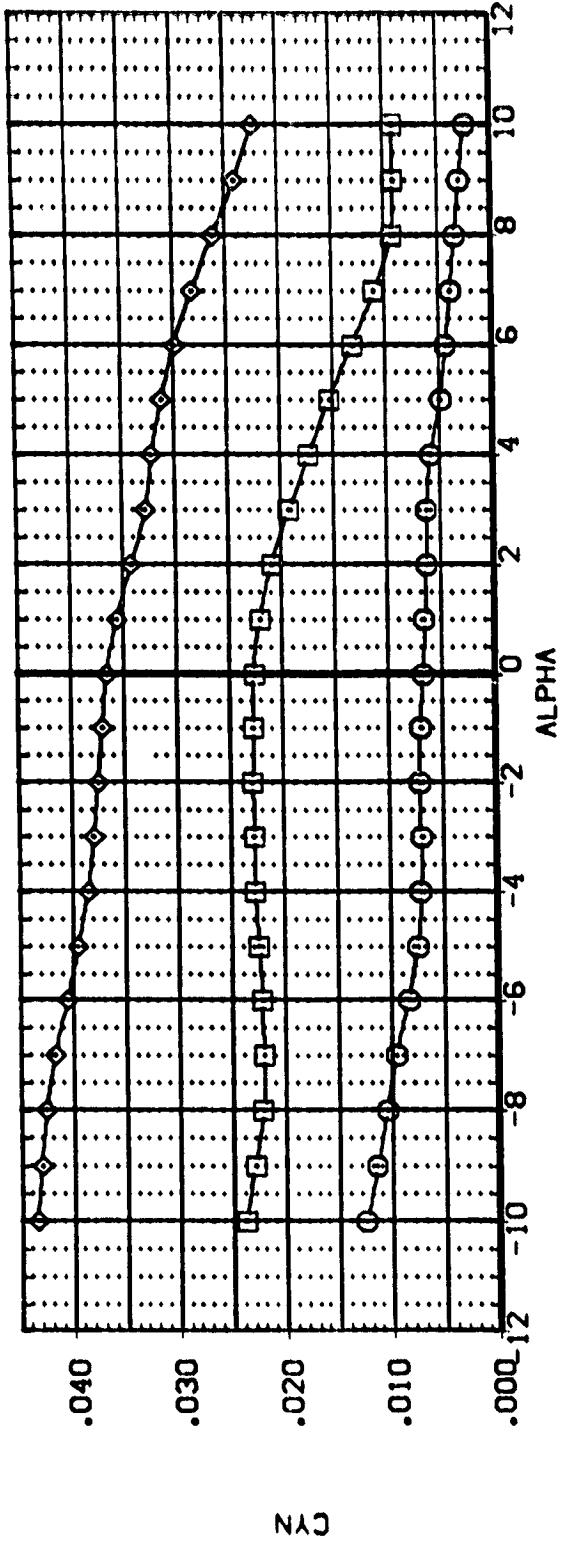
CAPMACH 4.50

PAGE 34

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[STL045]	AEDC VA-4221(IA-57) ORB/ET V/BOTH 598
[STL047]	AEDC VA-4221(IA-57) ORB/ET V/BOTH 598
[STL049]	AEDC VA-4221(IA-57) ORB/ET V/BOTH 598

REFERENCE INFORMATION  
 SRPOS RNL PT-JET BETA SPEC LREF BREF XHOP YHOP SCALE  
 2.200 1.750 .000 .000 2690.0000 IN.  
 2.200 1.750 .750 .000 1250.3000 IN.  
 2.200 1.750 1.500 .000 1250.3000 IN.  
 1167.0000 IN. IS  
 400.0000 IN. IS  
 .0100 IN. IS



EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 2)

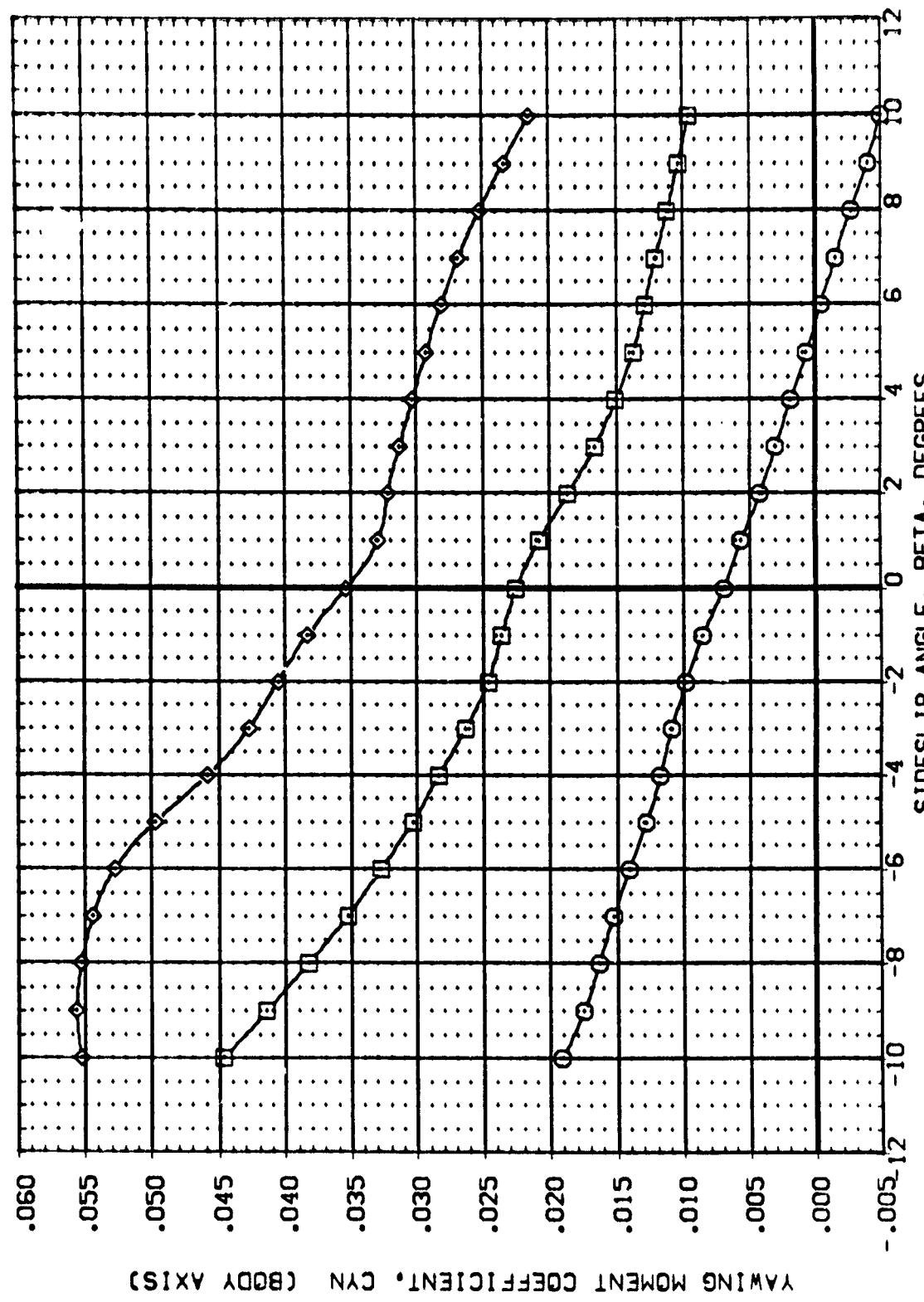
CY/MACH 4.50



DATA: 317

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (STL046) AEDC VA-422(A-57). ORB/EET V/80TH SAB  
 (STL048) AEDC VA-422(A-57). ORB/EET V/80TH SAB  
 (STL050) AEDC VA-422(A-57). ORB/EET V/80TH SAB

SRPOS RVAL PT-JET ALPHA REFERENCE INFORMATION  
 2.200 1.760 .000 SREF 7690.0000 SD.FT.  
 2.200 1.760 .750 .000 LREF 1290.0000  
 .000 BREF 1290.0000  
 XSRP 1167.0000  
 YSRP 400.0000  
 ZMRP 115.0000  
 SCALE .0100



EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 2)

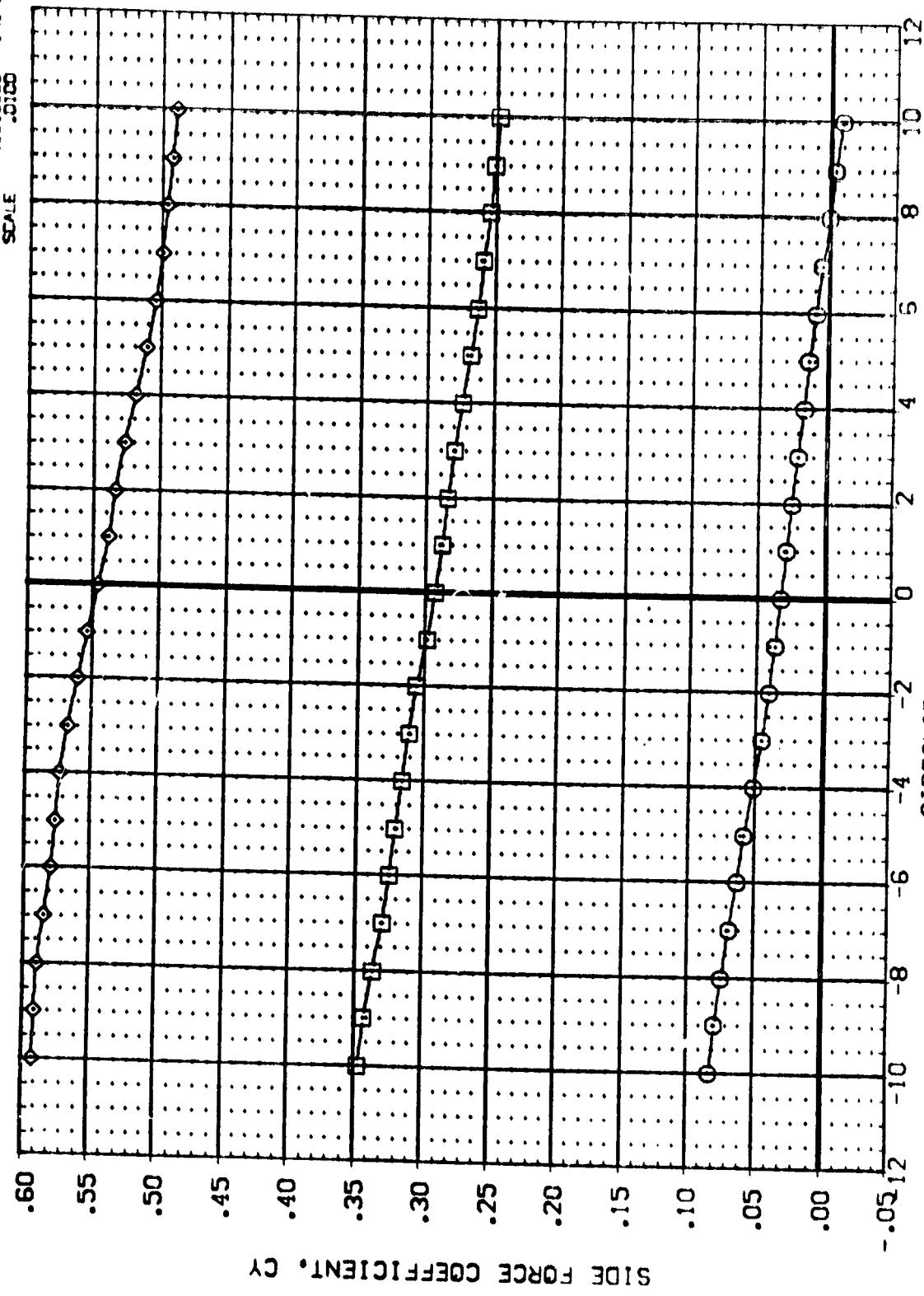
CGAC

.50

3:3

DATA SETS  
 (STD046) AEDC VA-422(IA-S71). ORB/ET V/BOTH SRB  
 (STD048) AEDC VA-422(IA-S71). ORB/ET V/BOTH SRB  
 (STD050) AEDC VA-422(IA-S71). ORB/ET V/BOTH SRB

CONFIGURATION DESCRIPTION  
 REFERENCE INFORMATION  
 SPAN 2,200 IN.  
 SREF 2890.0000 IN.  
 LREF 1250.0000 IN.  
 BREF 1250.0000 IN.  
 AREF 1167.0000 IN.  
 TREF 400.0000 IN.  
 SCALE .2500 IN.

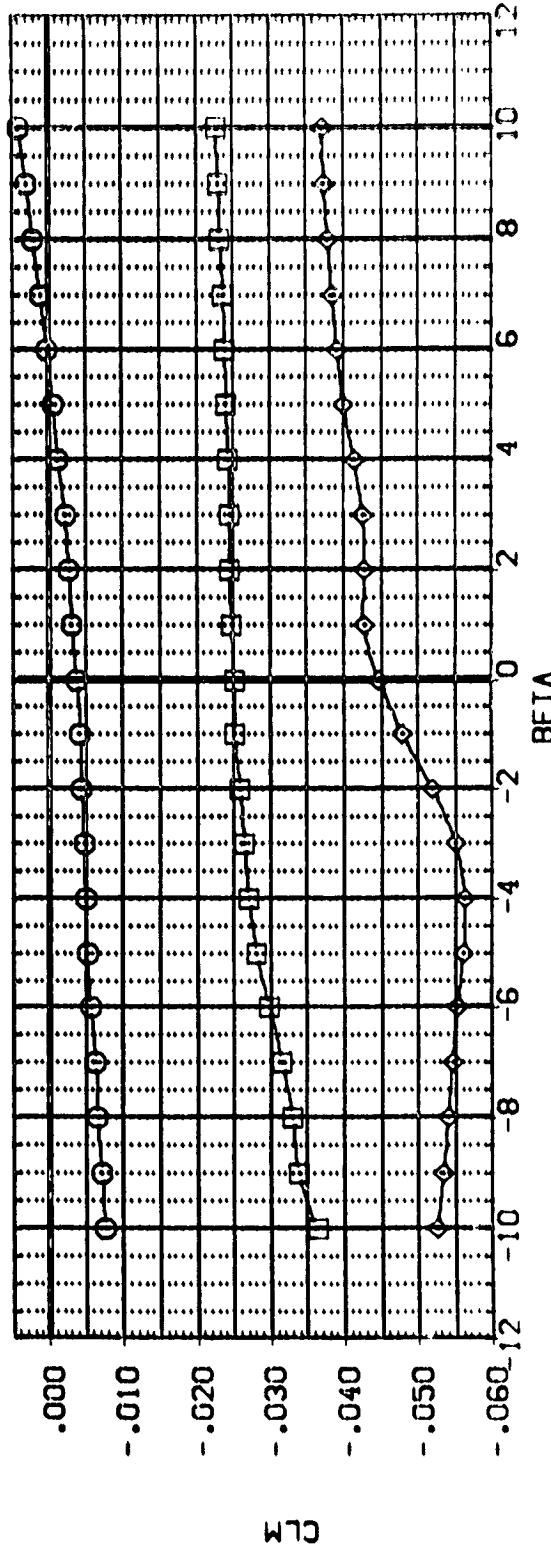
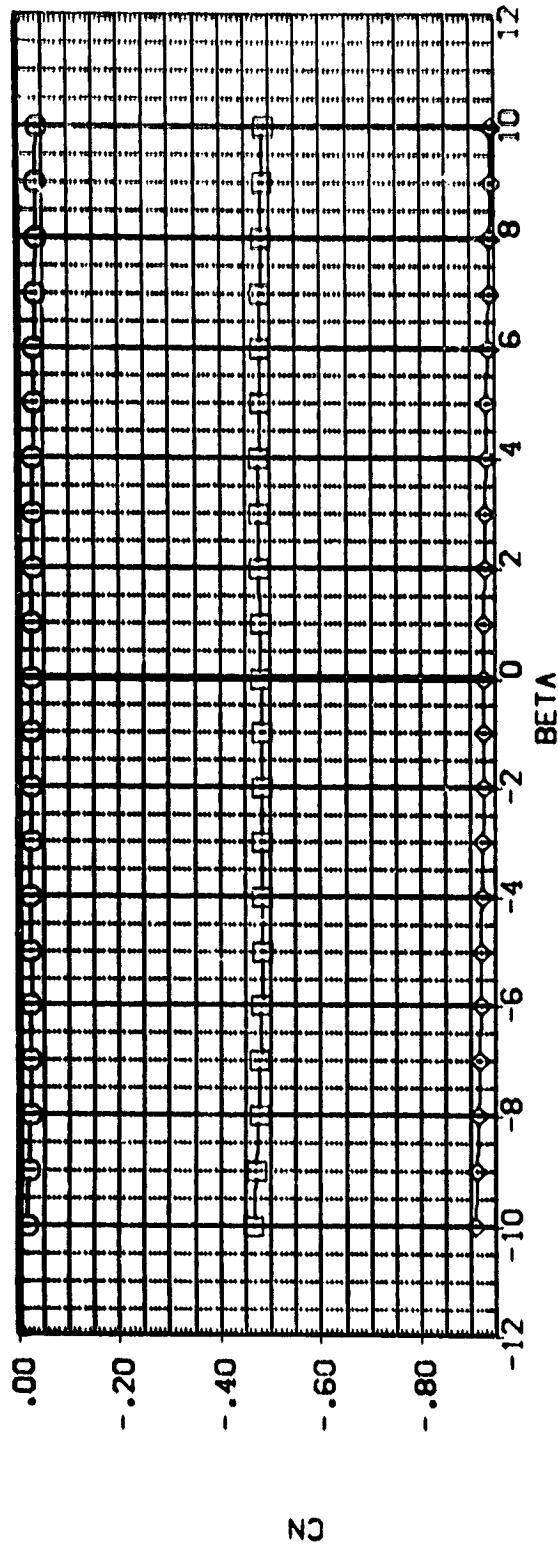


EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 2)  
 C<sub>A</sub> = 0.0  
 C<sub>B</sub> = 0.50

3:5  
 3:1

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [STD016] AEDC VA-422 (A-571) ORB/ET V/BOTH SRB  
 [STD048] AEDC VA-422 (A-571) ORB/ET V/BOTH SRB  
 [STD050] AEDC VA-422 (A-571) ORB/ET V/BOTH SRB

SRB-POS RNV<sub>Z</sub> PT-JET ALPHA REFERENCE INFORMATION  
 2.200 1.750 .000 .000 SREF 2890.0000  
 2.200 1.750 .000 .000 LREF 2920.0000  
 2.200 1.750 .000 .000 DREF 2950.0000  
 2.200 1.750 .000 .000 YREF 16.0000  
 2.200 1.750 .000 .000 ZREF 40.0000  
 SCALE .05 .05 .05 .05



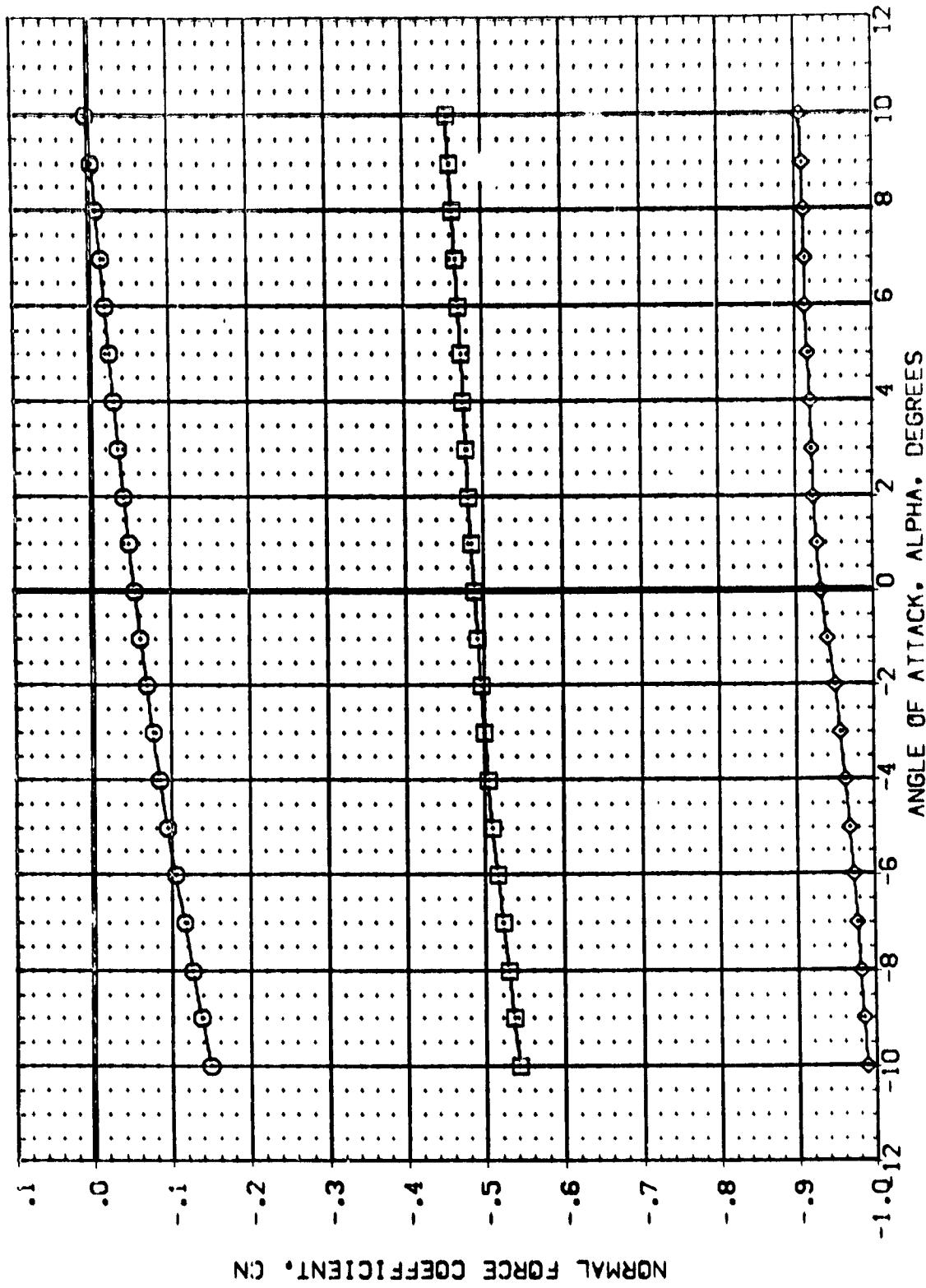
EFFECT OF TWO SRBs AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 2)

CADWACH 4.50

2:31 3:15

DATA SET SYMBOL. CONFIGURATION DESCRIPTION  
 [STL056] AEDC VA-4221[TA-57]. 088/ET V-BOTH SRB  
 [STL058] AEDC VA-4221[TA-57]. 088/ET V-BOTH SRB  
 [STL060] AEDC VA-4221[TA-57]. 088/ET V-BOTH SRB

STEPPOS	RVL	PT-JET	BETA	REFERENCE DEGREES	SCALE
3.300	1.760	.000	.000	REF	2650 3000
	1.760	750	.000	REF	1350 3000
3.300	1.760	1500	.000	REF	1350 3000
3.300	1.760	1500.000	.000	AIRP	1570 3000
				YAWP	1570 3000
				ZHPP	400 3000



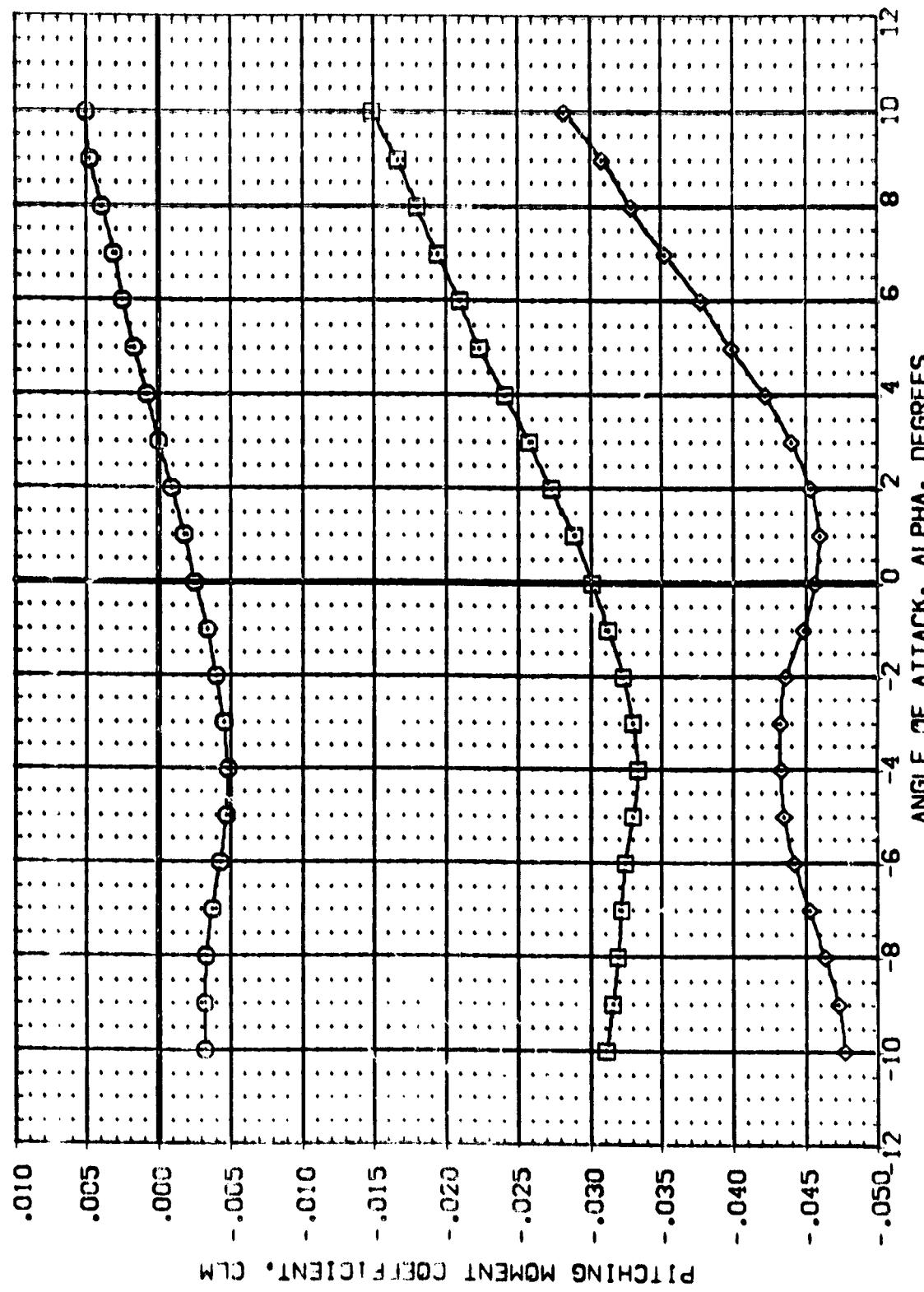
EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 3)

(A) 4.50

245E 345

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[STLOSS]	AEDC VA-422 (IA-57).
[STLOSS8]	AEDC VA-422 (IA-57).
[STLOSS16]	AEDC VA-422 (IA-57).
[STLOSS32]	AEDC VA-422 (IA-57).

SR#PDS	RIV/L	P7-JET	BETA	REFERENCE INFORMATION.	SC. PT.
3.300	1.760	.750	.000	SREF 760.0000	
3.300	1.760	.750	.000	SREF 750.3000	
3.200	1.760	.650	.000	SREF 650.2000	
3.200	1.760	.650	.000	SREF 650.2000	

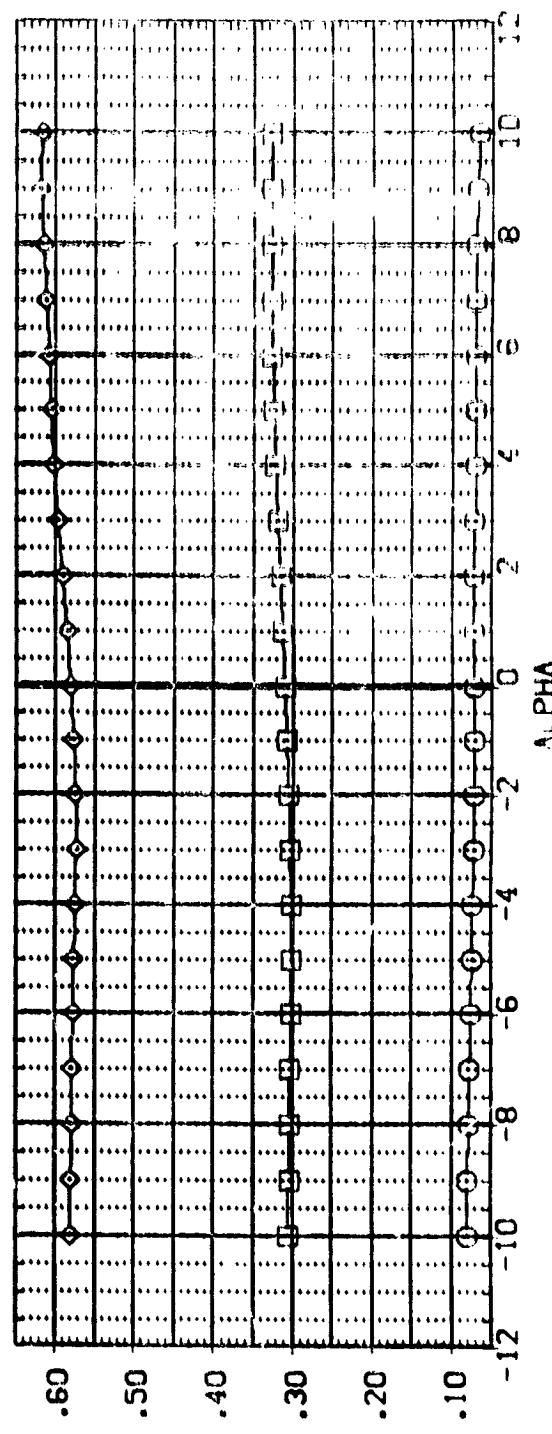
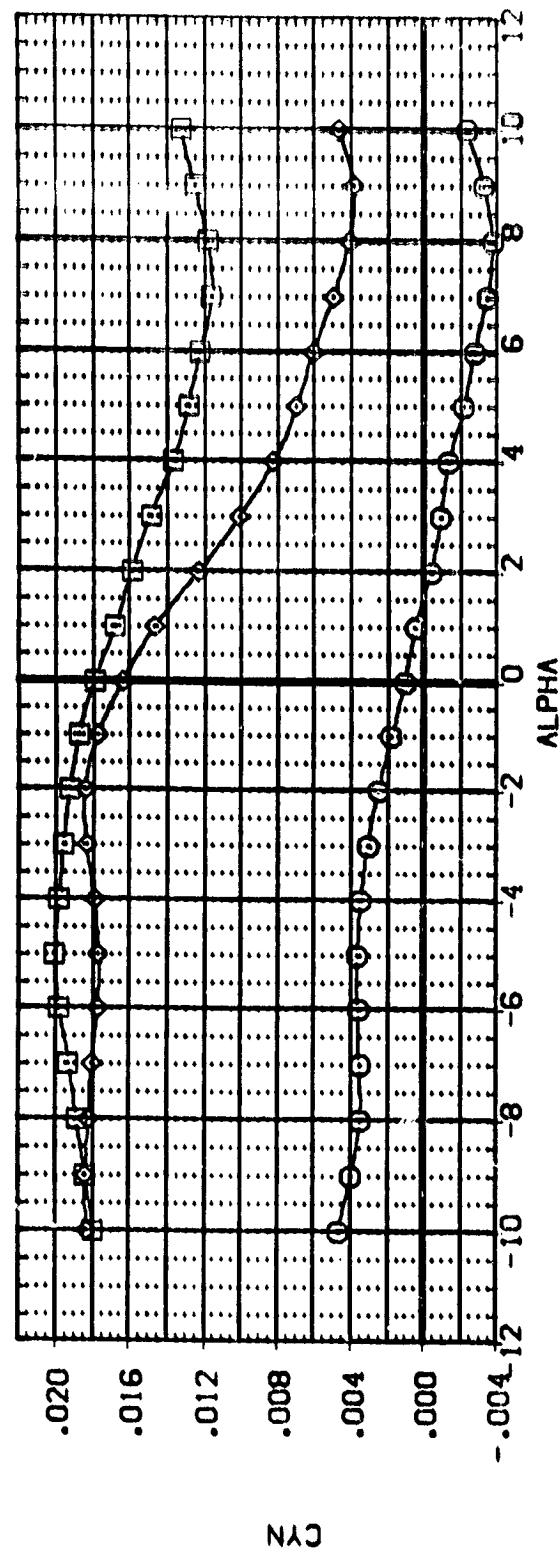


## EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 3)

• 50

DATA SET SPEED CONFIGURATION DESCRIPTION  
 STD056 AEDC VA-422(IA-57). OB/ET V/BOTH SRB  
 STD058 AEDC VA-422(IA-57). OB/ET V/BOTH SRB  
 STD060 AEDC VA-422(IA-57). OB/ET V/BOTH SRB

SRBPOS ROLL PI-JET BETA REFERENCE INFORMATION  
 3.300 1.780 .000 .000 SRF 330.000 SQ.FT.  
 3.300 1.780 .750 .000 SRF 330.000 SQ.FT.  
 3.300 1.780 1.500 .000 SRF 330.000 SQ.FT.

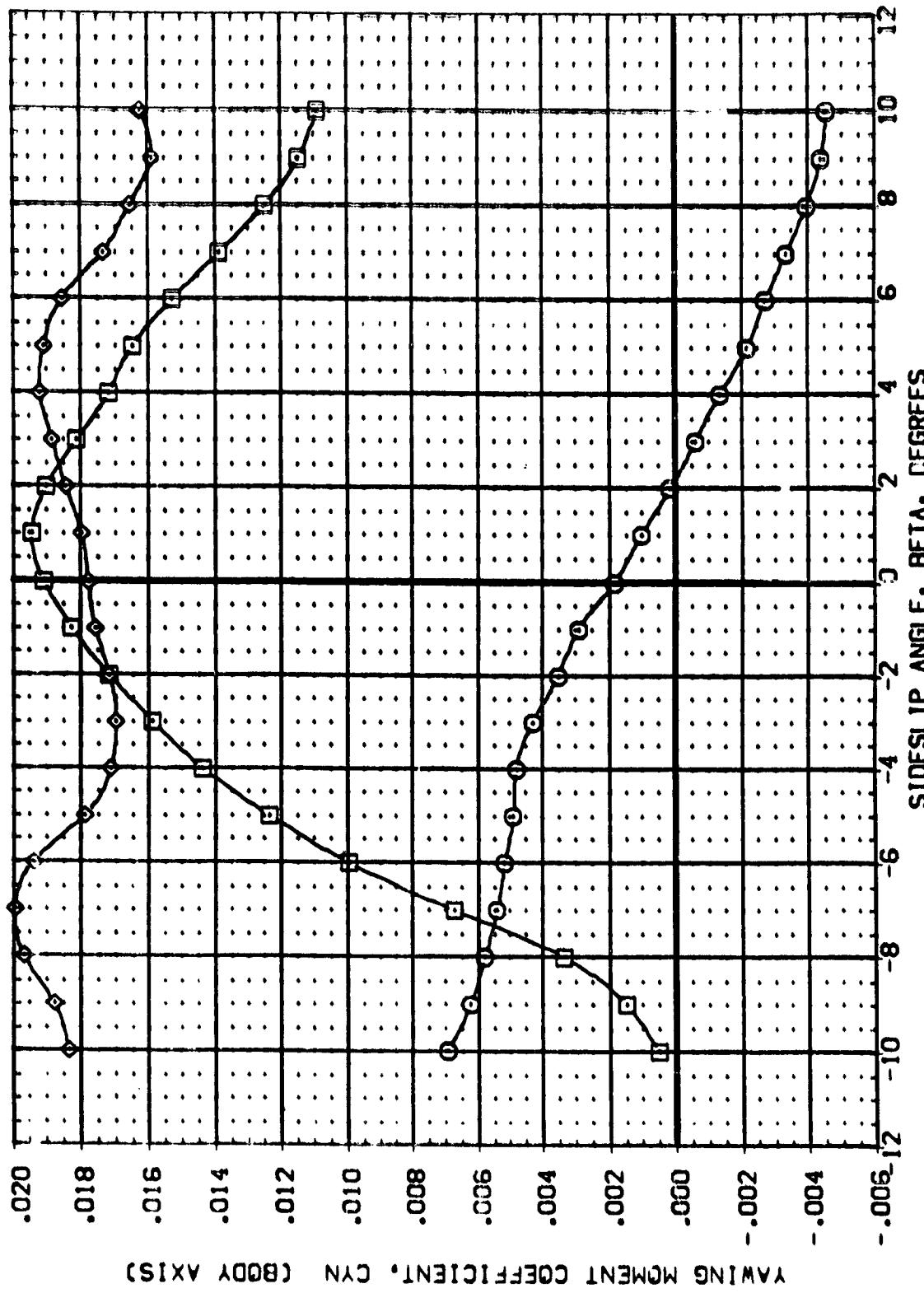


EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS POSITION 3  
 (A) CY vs ALPHA

348

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[STL057]	AEDC VA-2221[A-57].
[STL059]	AEDC VA-4221[A-57].
[STL061]	AEDC VA-4221[A-57].
[STL063]	AEDC VA-4221[A-57].

REFPOS	RFL	PT-JET	ALPHA	REFERENCE INFORMATION	SD.FT.
3.200	1.760	.000	.000	S&F	280.000
3.300	1.760	750.000	.000	L&F	120.300
3.300	1.760	1500.000	.000	B&F	120.300

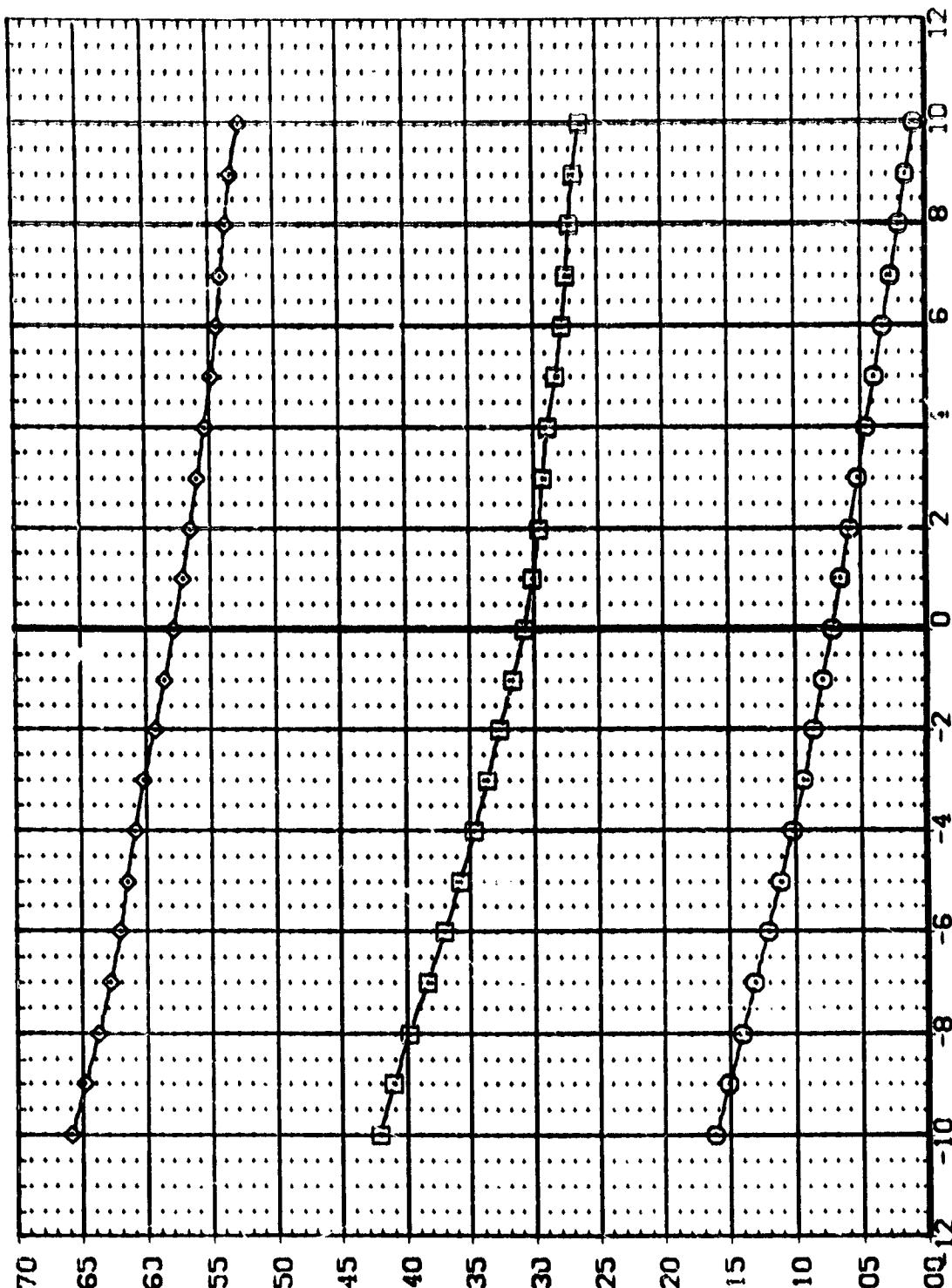


EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 3)

1 : 50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (STL057) AEDC VA-422(A-57). 098/ET V/80TH SRB  
 (STL058) AEDC VA-422(A-57). 098/ET V/80TH SRB  
 (STL061) AEDC VA-422(A-57). 098/ET V/85H SRB

REF. PT-JET ALPHA REFERENCE INFECTION.  
 3.300 1.750 .000 2650.000 SC.FT.  
 3.300 1.750 .000 1250.000 IN.  
 3.300 1.750 .000 1.5 .000 IN.  
 3.300 1.750 .000 100.000 IN.  
 3.300 1.750 .000 50.000 IN.  
 SCALE



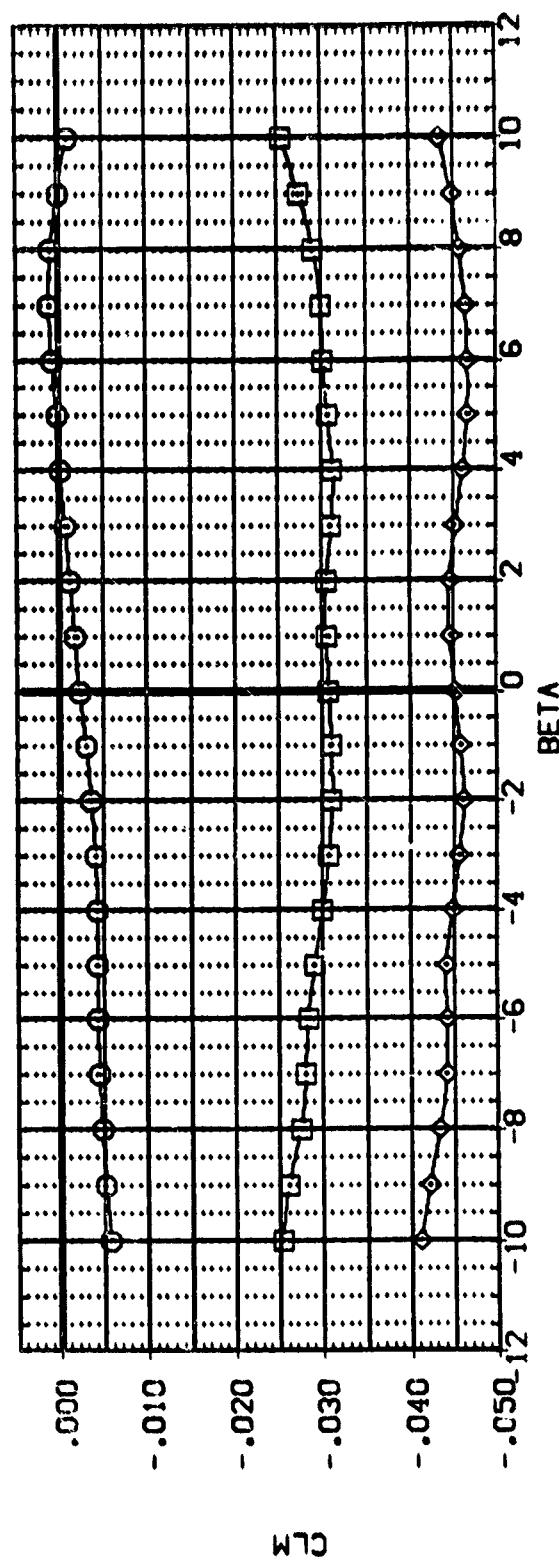
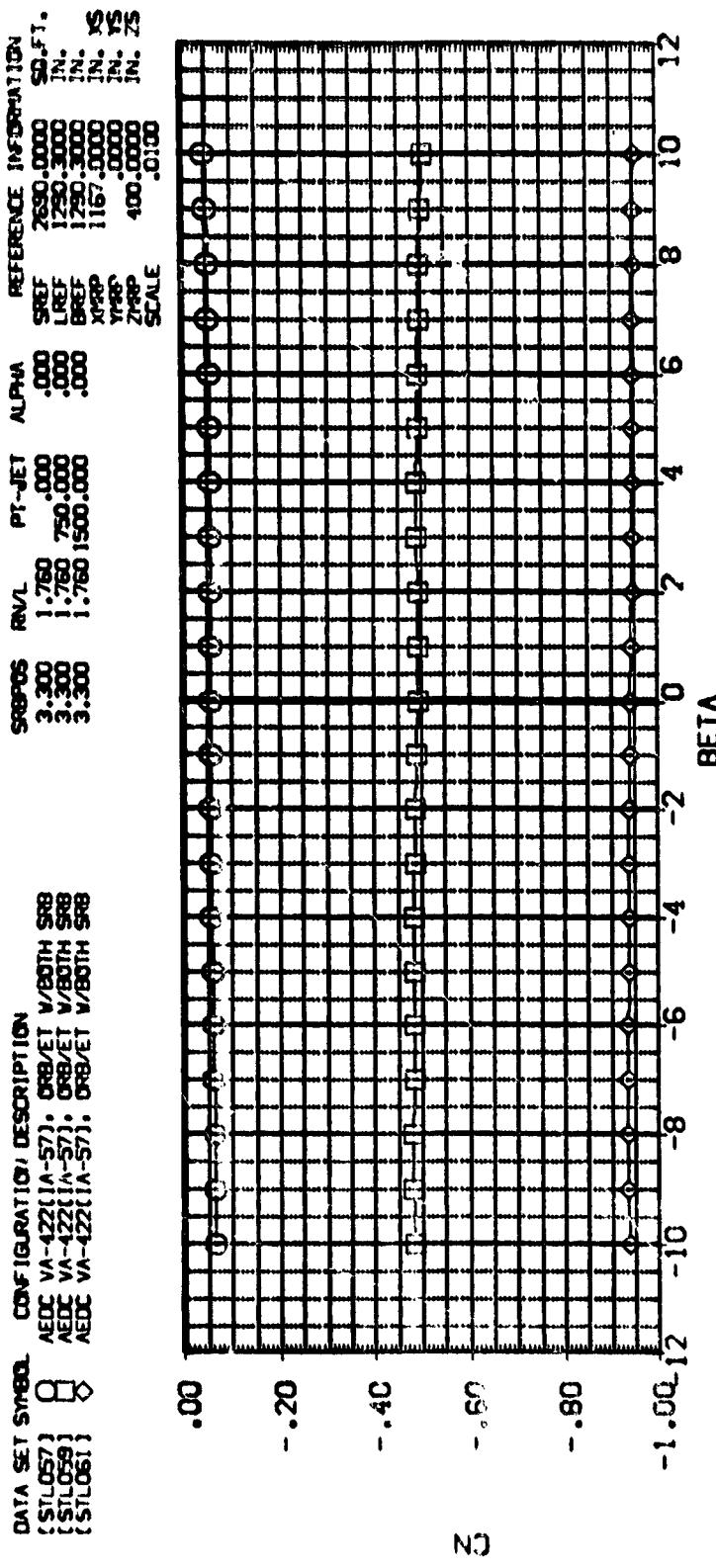
SICE FORCE COEFFICIENT. CY

EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 3)

(A) MACH - 4.50

2:6: 350

DATA SET NUMBER CONFIGURATION DESCRIPTION  
 ST10571 AEDC VA-422(1A-57) ORB/ET V/BOTH SRB  
 ST10572 AEDC VA-422(1A-57) ORB/ET V/BOTH SRB  
 ST10573 AEDC VA-422(1A-57) ORB/ET V/BOTH SRB



EFFECT OF TWO SRB AND SRB PLUMES ON SRB CHARACTERISTICS (POSITION 3)

C<sub>A</sub>MACH = 4.50

PAGE 35:

**TABULATED SOURCE DATA**

Plotted data tabulations are  
available from the DMS on request.

DATE 29 OCT 74

AEDC WA-422(1A-47) : ISOLATED OBST

REFERENCE DATA

REFP = 2000,0000 SQ.FT.  
URP = 1200,3007 IN.  
DRP = 1800,3000 IN.  
ZRP = 447,0000 IN.  
SCALE = .0100

PAGE 1

AFRL(OM) (18 FEB 74) 1

PARAMETRIC DATA

BETA = 1000,000 RPL = 1,700

BETA = 1000,000 RPL = 1,700

RUN NO.	BRY 0	RVL = 1.00	GRADIENT INTERVAL = -3.00V 3.00
MACH	ALPHA	BETA	ON
4.500	-10,000	.00529	.31148
4.500	-9,000	.00517	.26676
4.500	-8,000	.00506	.26424
4.500	-7,000	.00499	.23799
4.500	-6,000	.00499	.21019
4.500	-5,000	.00481	.18285
4.500	-4,000	.00479	.15503
4.500	-3,000	.00462	.12593
4.500	-2,000	.00470	.10377
4.500	-1,000	.00457	.07821
4.500	.000	.00463	.04465
4.500	1,000	.00368	.03232
4.500	2,000	.00392	.00967
4.500	3,000	.00317	.01257
4.500	4,000	.00310	.03568
4.500	5,000	.00342	.05876
4.500	6,000	.00422	.08031
4.500	7,000	.00360	.10537
4.500	8,000	.00351	.12847
4.500	9,000	.00635	.15575
4.500	10,000	.00636	.18200
GRADIENT			.02392

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

DATE 29 OCT 74

AEDC VA-422(1K-97), ISOLATED OBSTET

PAGE 2

OUTLINED ( 18 FEB 74 )

REFERENCE DATA

BREF = 2850.0000 SQ.FT.  
LREF = 1290.3000 IN.  
BREF = 1290.3000 IN.  
SCALE = .1000

RUN NO. 8600 RVL = 1.88 GRADIENT INTERVAL = -5.00 5.00

MACH	BETA	ALPHA	CN	CLW	CT	CLN	CTN	CDL	CDN	CA
4.500	-10.000	-1.3674	-.06077	.02194	.30160	-.09666	.03512	.20200		
4.500	-9.000	-1.2954	-.06171	.02293	.27066	-.08663	.03138	.19935		
4.500	-8.000	-1.2271	-.06412	.02644	.23684	-.07559	.02776	.19636		
4.500	-7.000	-1.1640	-.06621	.02855	.20162	-.06487	.02399	.19310		
4.500	-6.000	-1.1023	-.06932	.03131	.17100	-.05477	.02038	.19008		
4.500	-5.000	-1.0621	-.07153	.03255	.13835	-.04460	.01668	.18742		
4.500	-4.000	-1.0197	-.07324	.03370	.10620	-.03424	.01277	.18474		
4.500	-3.000	-0.9690	-.07543	.03541	.07246	-.02469	.00945	.18219		
4.500	-2.000	-0.9284	-.07586	.03616	.04486	-.01319	.00586	.18033		
4.500	-1.000	-0.8906	-.07472	.03571	.01429	-.00398	.00227	.17913		
4.500	.000	-0.8607	-.07459	.03598	-.01493	.00276	-.00099	.17927		
4.500	1.000	-0.8274	-.07573	.03752	-.04533	.01210	-.01447	.16146		
4.500	2.000	-0.8003	-.07569	.03777	-.07553	.02112	-.00793	.16323		
4.500	3.000	-0.7862	-.07439	.03700	-.10583	.03056	-.01161	.15313		
4.500	4.000	-0.7726	-.07417	.03672	-.13762	.03936	-.01477	.16693		
4.500	5.000	-0.7739	-.07376	.03547	-.16820	.04796	-.01804	.16838		
4.500	6.000	-0.7636	-.07229	.03345	-.19954	.05998	-.02119	.16977		
4.500	7.000	-0.7817	-.07150	.03232	-.23226	.06728	-.02456	.19192		
4.500	8.000	-0.7603	-.07014	.03113	-.26587	.07860	-.02845	.19632		
4.500	9.000	-0.7774	-.06922	.03076	-.30161	.08916	-.03231	.19653		
4.500	10.000	-0.7849	-.06891	.02880	-.33748	.10068	-.03618	.19877		
	GRADIENT	.00268	-.00011	.00033	-.03050	.03922	-.00346	.00027		

PARAMETRIC DATA

ALPHA = .000 RVL = 1.780

DATE 28 OCT 74

PAGE 3

AEDC VA-422(1A-37), ISOLATED OBSTACLES

ATTACHMENT 1 18 FEB 74

REFERENCE DATA

XREF = 2000.000 IN. ZFT.  
YREF = 1052.000 IN. YT  
ZREF = 1200.000 IN.  
SCALE = .0100.

PARAMETRIC DATA

RUN NO. 89/0 RFL = 4.82 GRADIENT INTERVAL = -1.00V 5.00

MACH	ALPHA	BETA	CN	CM	CT	CV	CL	CD
4.500	-10.000	.00298	-.31079	.10250	-.00037	-.00046	.00064	.22937
4.500	-9.000	.00393	-.28767	.09712	-.00034	-.00053	.00061	.22550
4.500	-8.000	.00492	-.26322	.09207	-.00027	-.00077	.00052	.22050
4.500	-7.000	.00594	-.23976	.08613	-.00038	-.00066	.00053	.21469
4.500	-6.000	.00713	-.21334	.07665	-.00042	-.00103	.00051	.20379
4.500	-5.000	.00751	-.18987	.07073	-.00040	-.00091	.00043	.20334
4.500	-4.000	.00821	-.15933	.06264	-.00114	-.00050	.00032	.19826
4.500	-3.000	.00935	-.13382	.05461	-.00192	-.00058	.00022	.19211
4.500	-2.000	.01068	-.10861	.04694	-.00253	-.00027	.00023	.18619
4.500	-1.000	.01241	-.08335	.03897	-.00246	-.00131	.00027	.16159
4.500	.000	.01024	-.05946	.03186	-.00266	-.00031	.00022	.17703
4.500	.1.000	.01049	-.03627	.02521	-.00281	-.00030	.00015	.17558
4.500	2.000	.01028	-.01349	.01906	-.00287	-.00224	.00029	.17056
4.500	3.000	.01081	.00972	.01246	-.00311	-.00230	.00030	.16909
4.500	4.000	.01132	.01353	.01524	-.00369	-.00200	.00039	.16891
4.500	5.000	.01222	.01691	-.00211	-.00410	-.00066	.00036	.16352
4.500	6.000	.01361	.01063	-.00373	-.00442	-.00031	-.00037	.16109
4.500	7.000	.01523	.10475	-.01702	-.00496	-.00022	-.00015	.15625
4.500	8.000	.01710	.13049	-.02511	-.00537	-.00017	-.00016	.15563
4.500	9.000	.01863	.15730	-.03376	-.00536	-.00031	-.00036	.15341
4.500	10.000	.01966	.18506	-.04232	-.01559	-.00026	-.00026	.15134
	GRADIENT	.00000	.02412	-.00716	-.00025	-.00000	-.00000	-.00069

DATE 29 OCT 74

AEDC VA-02211A-571, ISOLATED CRATER

REFERENCE DATA

XRP = 2000.0000 SQ. FT.  
YRP = 1032.0000 IN. XT  
YRP = 1032.0000 IN. YT  
ZRP = 447.0000 IN. ZT  
SCALE = .0100

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( 10 FEB 74 )

PARAMETRIC DATA

ALPHA = .000 .000 RPL = 4.700

RUN NO. 900 0 RPL = 4.85 GRADIENT INTERVAL = -5.00 5.00

MACH	BETA	ALPHA	CX	CW	CY	CTN	CL	CD
4.500	-10.000	-.33063	-.06237	.02410	.30396	-.09704	.03359	.19355
4.500	-9.000	-.31923	-.06463	.02328	.26969	-.08476	.03368	.19358
4.500	-8.000	-.30596	-.06672	.02447	.25350	-.07325	.03371	.19354
4.500	-7.000	-.29293	-.06826	.02790	.20164	-.06208	.02299	.19305
4.500	-6.000	-.27727	-.07088	.03045	.17032	-.05284	.01977	.18986
4.500	-5.000	-.26581	-.07205	.03228	.13953	-.04363	.01615	.18338
4.500	-4.000	-.25619	-.07416	.03383	.10731	-.03414	.01247	.18286
4.500	-3.000	-.24937	-.07680	.03576	.07612	-.02465	.00830	.18022
4.500	-2.000	-.24277	-.07912	.03741	.04596	-.01507	.00360	.17677
4.500	-1.000	-.23813	-.07939	.03773	.01527	-.00585	.00247	.17617
4.500	.000	-.23432	-.07937	.03825	-.01512	-.00317	.00159	.17602
4.500	1.000	-.23211	-.07912	.03886	-.04353	.01220	-.00447	.18023
4.500	2.000	-.23372	-.07915	.03828	-.07573	.02090	-.00767	.18156
4.500	3.000	-.23731	-.07813	.03716	-.10569	.03010	-.01110	.18350
4.500	4.000	-.23976	-.07644	.03575	-.13703	.03914	-.01441	.18459
4.500	5.000	-.24683	-.07639	.03456	-.16693	.04780	-.01753	.18683
4.500	6.000	-.25313	-.07597	.03341	-.19704	.05684	-.02387	.18888
4.500	7.000	-.25763	-.07526	.03222	-.22969	.06599	-.02430	.19085
4.500	8.000	-.26246	-.07448	.03120	-.25313	.07676	-.02732	.19273
4.500	9.000	-.26702	-.07408	.03026	-.25647	.08843	-.03174	.19432
4.500	10.000	-.27135	-.07369	.02916	-.25957	.09369	-.03337	.19588
	GRADIENT	.002308	-.00032	.00024	-.00035	.00913	-.00337	

DATE 29 OCT 74

AEDC VA-42211A-37, ISOLATED CRATER

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ATTACHMENT ( 10 FEB 74 )

REFERENCE DATA

XREF = 2600.0000 30.0FT. YREF = 1052.0000 IN. X1  
XREF = 1020.0000 IN. YREF = .0000 IN. Y1  
XREF = 1020.0000 IN. ZREF = 447.0000 IN. Z1  
SCALE = .0100

PARAMETRIC DATA

RIN NO. 8710 RFLV = 6.32 GRADIENT INTERVAL = -5.0V 5.0V

MACH	ALPHA	BETA	GAMMA	C <sub>X</sub>	C <sub>Y</sub>	C <sub>Z</sub>
4.500	-10.000	-.04169	-.31213	.10296	.00120	-.00061
4.500	-9.000	-.03569	-.26827	.09736	.00094	-.00067
4.500	-8.000	-.03034	-.26549	.09253	.00064	-.00096
4.500	-7.000	-.02592	-.24108	.08666	.00065	-.00115
4.500	-6.000	-.01615	-.21452	.07918	.00076	-.00125
4.500	-5.000	-.01228	-.18720	.07110	.00016	-.00113
4.500	-4.000	-.00776	-.16065	.06296	-.00030	-.00090
4.500	-3.000	-.00077	-.13529	.05326	-.00063	-.00063
4.500	-2.000	.00594	-.10967	.04773	-.00039	-.00024
4.500	-1.000	.01158	-.08619	.04040	-.00077	.00022
4.500	.000	.01691	-.06140	.03261	-.00332	-.00334
4.500	1.000	.02214	-.03740	.02357	-.00374	.00020
4.500	2.000	.02692	-.01411	.01914	-.00391	.00013
4.500	3.000	.03031	.00950	.01264	-.00378	-.00001
4.500	4.000	.03395	.00253	.00543	-.00431	-.00035
4.500	5.000	.03986	-.00666	-.00269	-.00447	-.00012
4.500	6.000	.04708	.00063	-.00948	-.00465	-.00006
4.500	7.000	.05403	.01040	-.01670	-.00607	-.00019
4.500	8.000	.05987	.02916	-.02405	-.00560	-.00027
4.500	9.000	.06366	.15547	-.03237	-.00632	-.00011
4.500	10.000	.07587	.18320	-.04153	-.00681	-.00028
		.00516	.02423	-.00723	-.0016	-.00035

DATE 29 OCT 74

ADD/C VA-42211A-97, ISOLATED CRUST

REFERENCE DATA

HTD = 1000.0000 IN. FT.  
LTD = 1000.0000 IN.  
BHD = 1000.0000 IN.  
SCALE = .0102

RUN NO. 88/0 RVL = 6.38 GRADIENT INTERVAL = -1.00 5.00

MACH	BETA	ALPHA	ON	CH	CV	CTN	CL	CA
4.500	-10.000	-4.9217	.00696	.002268	.30779	.00723	.00453	.00000
4.500	-9.000	-4.9204	.006926	.002435	.27119	.00495	.00400	.19777
4.500	-8.000	-4.9203	.007103	.002566	.23641	.00726	.00663	.19432
4.500	-7.000	-4.9108	.007311	.002697	.20329	.006223	.02326	.19087
4.500	-6.000	-3.9196	.007372	.003137	.17192	.005304	.01973	.16950
4.500	-5.000	-3.9853	.007442	.003322	.14022	.004351	.01615	.16535
4.500	-4.000	-3.5639	.007735	.003534	.10817	.003393	.01259	.16110
4.500	-3.000	-3.4659	.007980	.003681	.07693	.002425	.00923	.16169
4.500	-2.000	-3.3923	.008165	.003819	.04611	.001636	.00560	.16223
4.500	-1.000	-3.3174	.008220	.003995	.01616	.000834	.00244	.17971
4.500	.000	-3.2783	.008246	.003949	.01387	.000219	.00035	.16739
4.500	1.000	-3.2896	.008225	.003957	.004391	.01100	.00430	.16173
4.500	2.000	-3.3014	.008157	.003988	.007423	.01992	.00765	.16313
4.500	3.000	-3.3639	.008046	.003778	.010447	.002911	.01301	.16512
4.500	4.000	-3.4164	.007894	.005627	.013606	.00869	.01443	.16803
4.500	5.000	-3.5163	.007653	.005511	.016355	.00716	.01737	.16839
4.500	6.000	-3.6211	.007503	.00426	.019286	.00566	.02094	.16260
4.500	7.000	-3.7023	.007660	.00317	.022855	.00570	.02334	.16235
4.500	8.000	-3.7710	.007650	.00231	.02215	.00634	.02639	.16453
4.500	9.000	-3.8334	.007753	.00133	.02014	.00896	.03638	.16566
4.500	10.000	-3.8221	.006937	.00851	.06784	.12344	.11340	.14406
	GRADIENT	.00179	-.00222	.00016	-.00304	.00501	-.00337	.00353

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STLDSNO ( 10 FEB 74 )

PARAMETRIC DATA

DATE 28 OCT 74

ADDC VA-4211A-37, GENEW WRIGHT 900

REFERENCE DATA

SUP = 2800.0000 59.5FT. XRP = 1052.0000 IN. XT  
LRF = 1200.3000 IN. YRP = .0000 IN. YT  
ZRP = 1200.3000 IN. ZT  
SCALE = .0100

PARAMETRIC DATA

RUN NO.	T0/0	RFL = 1.49	GRADIENT INTERVAL = -3.00	T0/0	3.00
MACH	ALPHA	BETA	ON	ON	ON
4.500	-10.000	.16146	-.13638	-.16113	-.24392
4.500	-9.000	.16082	-.11616	-.14770	-.23633
4.500	-8.000	.16180	-.09538	-.14928	-.23244
4.500	-7.000	.15480	-.06139	-.15260	-.21923
4.500	-6.000	.15728	-.03674	-.15774	-.21493
4.500	-5.000	.16125	-.01530	-.16158	-.20982
4.500	-4.000	.16735	.00230	-.16478	-.20574
4.500	-3.000	.16221	.01409	-.16897	-.21333
4.500	-2.000	.16924	.03567	-.17079	-.21059
4.500	-1.000	.18320	.09370	-.17645	-.19556
4.500	.000	.18846	.07079	-.18050	-.19226
4.500	1.000	.19364	.09604	-.18376	-.18485
4.500	2.000	.19957	.10894	-.18080	-.18037
4.500	3.000	.20443	.11204	-.17145	-.17331
4.500	4.000	.20856	.12763	-.17261	-.17170
4.500	5.000	.21262	.14585	-.17317	-.17123
4.500	6.000	.21570	.16573	-.17935	-.17244
4.500	7.000	.21593	.16991	-.18523	-.17532
4.500	8.000	.21763	.21059	-.19195	-.17443
4.500	9.000	.22215	.23210	-.19806	-.17103
4.500	10.000	.22565	.23762	-.23719	-.17293
GRADIENT	.00472	.01423	-.00126	.00472	-.00268

ATTACHM ( 18 APR 74 )

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DATE 28 OCT 74

APEC VI-132/11-33: DRAFT MILESTONES

INTERVIEW WITH

SPD	=	2800.0000 SQ.FT.	XRP	=	1092.0000 IN. XT
LREF	=	1250.3000 IN.	YRP	=	.0000 IN. YT
GREF	=	1250.3000 IN.	ZRP	=	447.0000 IN. ZT
SCALE	=	.0100			

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Annuale 1911

DATE 28 OCT 74

REFERENCE DATA

REF# = 2850.000 SQ.FT. XREF = 102.000 IN. YREF = 102.000 IN. ZREF = 447.000 IN.  
LREF = 1250.000 IN. RREF = 1250.000 IN.  
SCALE = .0100

PARAMETRIC DATA

L-50 = .000 R-50 = .000  
SREF = .000 RFL = .000  
PT-JET = .000 BEIA = .000  
BEIA = .000

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

ADDC VA-4221A-37. CANTER WRIGHT 500

PAGE 0

10/18 APR 74

MACH	ALPHA	BETA	ON	OFF	GRADIENT INTERVAL = 1.00	GRADIENT INTERVAL = 2.00	CA
4.500	-10.000	.02600	-.30500	.00992	-.02950	.02226	.22211
4.500	-9.000	.02722	-.28322	.00993	-.02953	.02226	.22212
4.500	-8.000	.02635	-.26530	.00918	-.02953	.02176	.20264
4.500	-7.000	.02559	-.23577	.01756	-.02954	.01924	.21223
4.500	-6.000	.02487	-.20886	.06977	-.02955	.01355	.20265
4.500	-5.000	.02416	-.18192	.05197	-.02956	.01119	.20266
4.500	-4.000	.02346	-.15397	.03395	-.02957	.01119	.20267
4.500	-3.000	.02280	-.12592	.04795	-.02958	.00737	.19036
4.500	-2.000	.02212	-.10322	.04117	-.02959	.00737	.19037
4.500	-1.000	.02142	-.07546	.04117	-.02960	.00737	.19038
4.500	0.000	.02074	-.03950	.03417	-.02961	.00737	.19039
4.500	4.000	.02003	-.03946	.02776	-.02962	.00737	.19040
4.500	5.000	.02036	-.03838	.02241	-.02963	.00737	.19041
4.500	6.000	.02060	-.03755	.01703	-.02964	.00737	.19042
4.500	7.000	.02083	-.03752	.01116	-.02965	.00737	.19043
4.500	8.000	.02106	-.03696	.01063	-.02966	.00737	.19044
4.500	9.000	.02129	-.03637	.01773	-.02967	.00737	.19045
4.500	10.000	.02151	-.03599	.02396	-.02968	.00737	.19046
GRADIENT		0.0005					.02047

DATE 29 OCT 74

AEDC VA-42214-37, CRIST WRIGHT 368

REFERENCE DATA

REF	=	2890.0000 IN.	SO. FT.	XRP	=	1052.0000 IN.	X
LREF	=	1290.3000 IN.		YRP	=	.0000 IN.	Y
BREF	=	1290.3000 IN.		ZRP	=	447.0000 IN.	Z
SCALE	=	.0100					

REFERENCE DATA

REF	=	2890.0000 IN.	SO. FT.	XRP	=	1052.0000 IN.	X
LREF	=	1290.3000 IN.		YRP	=	.0000 IN.	Y
BREF	=	1290.3000 IN.		ZRP	=	447.0000 IN.	Z
SCALE	=	.0100					

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ATLANTA (10 APR 74) 1

PARAMETRIC DATA

L-REF =	.000
SREF =	.100
PT-ET =	.000
ALP =	.000
GRAD =	.000

RUN NO. T0/ 0 RVAL = 1.05 GRADIENT INTERVAL = -3.00/ 9.00

WACH	BETA	ALPHA	CN	CLW	CT	CN	CL	CA
4.500	-10.000	-13684	-.00049	.01263	.27447	-.00279	.03333	.16227
4.500	-9.000	-13104	-.00022	.02206	.23919	-.00326	.02677	.16227
4.500	-8.000	-12575	-.00431	.02230	.03500	-.00241	.02333	.16224
4.500	-7.000	-12020	-.00663	.02164	.17226	-.00113	.02110	.16224
4.500	-6.000	-11494	-.00869	.02107	.16353	-.00035	.01892	.02023
4.500	-5.000	-11031	-.01164	.02039	.10391	-.00956	.01447	.01132
4.500	-4.000	-10590	-.01452	.01972	.07630	-.00231	.00662	.01049
4.500	-3.000	-10166	-.01754	.01915	.04988	-.00273	.00717	.01071
4.500	-2.000	-97694	-.01750	.01820	.02149	-.01251	.00224	.01020
4.500	-1.000	-93379	-.01760	.01810	.03919	-.00250	.00206	.01020
4.500	.000	-8975	-.01773	.01849	.03993	-.00250	.00206	.01020
4.500	1.000	-86704	-.01785	.01939	.06738	-.00234	.00234	.01034
4.500	2.000	-83487	-.01793	.01983	.06749	-.00232	.00232	.01034
4.500	3.000	-80311	-.01801	.01983	.06749	-.00231	.00231	.01034
4.500	4.000	-788283	-.01821	.01924	.03654	-.15326	.03626	.01034
4.500	5.000	-76521	-.01846	.01856	.03656	-.16147	.04010	.01037
4.500	6.000	-73191	-.01861	.01838	.03570	-.21253	.01359	.01037
4.500	7.000	-700269	-.01876	.01829	.03412	-.24486	.02276	.01038
4.500	8.000	-668277	-.01883	.01823	.03243	-.27984	.02536	.01038
4.500	9.000	-636306	-.01893	.01816	.03076	-.31285	.02817	.01038
4.500	10.000	-604431	-.01906	.01809	.02916	-.34778	.03086	.01038
	GRADIENT	.01256				-.02911		

DATE 28 OCT 74

AMDC VA-622(1A-57) - CIRCUIT WAVEFORM DATA

REFERENCE DATA

REF = 880.0000 90.0T. TREF = 1032.0000 IN. X1  
LREF = 1200.3500 IN. TREF = .0000 IN. Y1  
BREF = 1200.3000 IN. ZREF = 447.0000 IN. Z1  
CREF = .0100.

PARAMETRIC DATA

L-REF = .0000 P-REF = .0000 R-REF = .0000  
SREF = .0000 T-REF = .0000 U-REF = .0000  
V1-ZET = .0000 V2-ZET = .0000

PLN NO. 72/ 0 FREQ = 1.00

CH00010001 INTERVAL = 1.00

MACH	ALPHA	BETA	C1	C4	C7	C10	C13	C16	C19	C22	C24
4.500	-10.000	.01019	-.23077	-.02013	-.12283	.01959	.01612	.01224	.01024	.00824	.00624
4.500	-9.000	.01019	-.17693	-.02457	-.12341	.01762	.01462	.01160	.00960	.00760	.00560
4.500	-8.000	.01029	-.15759	-.02896	-.12130	.01552	.01252	.00950	.00750	.00550	.00350
4.500	-7.000	.01039	-.13731	-.03289	-.11769	.01352	.01052	.00750	.00550	.00350	.00150
4.500	-6.000	.01058	-.11742	-.03634	-.11222	.01151	.00851	.00550	.00350	.00150	.00050
4.500	-5.000	.01051	-.09684	-.03956	-.10722	.01059	.00759	.00458	.00258	.00058	.00058
4.500	-4.000	.01021	-.07584	-.04358	-.10362	.01056	.00756	.00456	.00256	.00056	.00056
4.500	-3.000	.01024	-.05405	-.04666	-.10059	.00951	.00651	.00351	.00151	.00051	.00051
4.500	-2.000	.01023	-.03521	-.05021	-.09522	.00853	.00553	.00253	.00053	.00053	.00053
4.500	-1.000	.01042	-.01599	-.05468	-.08652	.00754	.00454	.00154	.00054	.00054	.00054
4.500	.000	.01074	.00055	-.05725	-.08469	.00655	.00355	.00055	.00055	.00055	.00055
4.500	1.000	.01085	.01965	-.06127	-.08375	.00559	.00259	.00059	.00059	.00059	.00059
4.500	2.000	.01072	.03884	-.06500	-.08641	.00455	.00155	.00055	.00055	.00055	.00055
4.500	3.000	.01103	.05544	-.06718	-.08885	.00357	.00157	.00057	.00057	.00057	.00057
4.500	4.000	.01150	.07318	-.07033	-.08932	.00251	.00151	.00051	.00051	.00051	.00051
4.500	5.000	.01161	.08877	-.07619	-.09517	.00152	.00152	.00052	.00052	.00052	.00052
4.500	6.000	.011372	.11000	-.07958	-.09304	.00053	.00053	.00053	.00053	.00053	.00053
4.500	7.000	.011517	.13102	-.08241	-.09134	.00050	.00050	.00050	.00050	.00050	.00050
4.500	8.000	.011750	.14920	-.08481	-.09312	.00050	.00050	.00050	.00050	.00050	.00050
4.500	9.000	.011659	.16963	-.08914	-.09247	.00050	.00050	.00050	.00050	.00050	.00050
4.500	10.000	.012170	.1612	-.09664	-.09168	.00050	.00050	.00050	.00050	.00050	.00050
4.500	11.000	.010936	.01934	-.09854	-.09246	.00050	.00050	.00050	.00050	.00050	.00050

DATE 10 OCT 74

PAGE 11

AMDC VA-622(1A-57) - CIRCUIT WAVEFORM DATA

DATE 29 OCT 74

ADCC W-4221A-371, CHART WEIGHT 200

REFERENCE DATA

REF = 1000.0000 90. FT. TREF = 1000.0000 IN. Y1  
LREF = 1250.0000 IN. TREF = 1250.0000 IN. Y1  
BREF = 1250.0000 IN. TREF = 1250.0000 IN. Y1  
SCALE = 0.0000

RUN NO. 71/0 FNU = 1.05 GRADIENT INTERVAL = 2.000 5.00

MACH	BETA	ALPHA	C0	C1	C2	C3	C4
4.500	-10.000	-0.2376	-0.0366	-0.1726	-0.0685	-0.002	-0.000
4.500	-9.000	-0.2294	-0.0412	-0.0276	-0.0581	-0.024	-0.000
4.500	-8.000	-0.2264	-0.0382	-0.0264	-0.0616	-0.024	-0.000
4.500	-7.000	-0.2164	-0.0364	-0.0264	-0.0675	-0.024	-0.000
4.500	-6.000	-0.2092	-0.0213	-0.0225	-0.1016	-0.012	-0.000
4.500	-5.000	-0.2037	-0.0293	-0.0284	-0.0745	-0.027	-0.000
4.500	-4.000	-0.1932	-0.02514	-0.0310	-0.0284	-0.036	-0.000
4.500	-3.000	-0.1869	-0.02269	-0.0323	-0.0366	-0.041	-0.000
4.500	-2.000	-0.1796	-0.02117	-0.03232	-0.0413	-0.045	-0.000
4.500	-1.000	-0.1687	-0.01874	-0.0322	-0.0435	-0.046	-0.000
4.500	0.000	-0.1723	-0.01887	-0.0323	-0.0436	-0.046	-0.000
4.500	1.000	-0.1699	-0.01826	-0.03274	-0.0439	-0.046	-0.000
4.500	2.000	-0.1659	-0.0181	-0.03274	-0.0439	-0.046	-0.000
4.500	3.000	-0.1620	-0.01656	-0.03164	-0.04173	-0.046	-0.000
4.500	4.000	-0.1571	-0.0153	-0.03221	-0.04531	-0.046	-0.000
4.500	5.000	-0.1530	-0.01576	-0.03312	-0.04146	-0.046	-0.000
4.500	6.000	-0.1495	-0.01663	-0.03360	-0.04261	-0.046	-0.000
4.500	7.000	-0.1460	-0.01650	-0.03360	-0.04261	-0.046	-0.000
4.500	8.000	-0.1422	-0.01824	-0.0347	-0.0437	-0.046	-0.000
4.500	9.000	-0.1387	-0.01897	-0.0353	-0.0439	-0.046	-0.000
4.500	10.000	-0.1353	-0.01952	-0.0353	-0.0439	-0.046	-0.000
							DATA

STATION (10 APR 74)

PAGE 18

DATE 22 OCT 74

ADC V4-2211-57 - COSET WEIGHT SEE

PAGE 15

OUTLINE ( 18 APR 74 )

REFERENCE DATA

SPD = 300,000 SF. PFT. DOP = 1002,000 IN. RT  
UTP = 1000,000 IN. YAW = 1002,000 IN. RT  
DOP = 1000,000 IN. ZDOP = 447,000 IN. RT  
SCALE = 0.0100

PARAMETRIC DATA

PR-DET = 1000,000 BETA = 1.000  
L-DET = 1000 BETA = 1.000  
G-DET = 1000 BETA = 1.000

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

RUN NO. TSV C RAVL = 1.00 GRADIENT INTERVAL = 5.00V 5.00

MACH	ALPHA	BETA	CH	CLM	CT	CRN	CL	CA
4.500	-10.000	-1.9876	-0.10103	-1.6985	-0.02456	-0.04046	.00372	
4.500	-9.000	-1.9856	-0.10103	-1.6195	.02253	-0.04046	.00329	
4.500	-8.000	-1.9498	-0.10103	-1.6216	-0.02174	-0.04046	.00363	
4.500	-7.000	-1.9226	-0.10103	-1.6226	-0.02113	-0.04046	.00354	
4.500	-6.000	-1.8949	-0.10103	-1.6744	-0.01954	-0.04046	.00321	
4.500	-5.000	-1.8665	-0.10103	-1.6919	-0.01821	-0.04046	.00346	
4.500	-4.000	-1.8322	-0.10103	-1.7150	-0.01704	-0.04046	.00364	
4.500	-3.000	-1.7165	-0.10103	-1.7240	-0.01614	-0.04046	.00353	
4.500	-2.000	-1.7798	-0.10103	-1.7297	-0.01526	-0.04046	.00342	
4.500	-1.000	-1.8449	-0.10103	-1.7344	-0.01432	-0.04046	.00310	
4.500	0.000	-1.9175	-0.10103	-1.7350	-0.01330	-0.04046	.00273	
4.500	1.000	-1.9807	-0.10103	-1.7354	-0.01232	-0.04046	.00291	
4.500	2.000	-2.0153	-0.10103	-1.7761	-0.01141	-0.04046	.00263	
4.500	3.000	-2.0382	-0.10103	-1.8047	-0.01056	-0.04046	.00277	
4.500	4.000	-2.1263	-0.10103	-1.8235	-0.00963	-0.04046	.00257	
4.500	5.000	-2.2225	-0.10103	-1.8310	-0.00865	-0.04046	.00264	
4.500	6.000	-2.2835	-0.10103	-1.8354	-0.00767	-0.04046	.00265	
4.500	7.000	-2.2896	-0.10103	-1.8292	-0.00669	-0.04046	.00276	
4.500	8.000	-2.2978	-0.10103	-1.8437	-0.00569	-0.04046	.00254	
4.500	9.000	-2.3446	-0.10103	-2.1328	-0.00469	-0.04046	.00241	
4.500	10.000	-2.3743	-0.10103	-2.1539	-0.00369	-0.04046		
GRADIENT		0.0433		0.0433				
		0.0435		0.0435				
		0.0437		0.0437				

DATE 29 OCT 74

## AEDC VA-422(1A-37), CRAYET WRIGHT 583

## REFERENCE DATA

REFX = 2800.0000 30.FFT.	XRP = 1092.0000 IN. XT
REFY = 1250.3000 IN.	YRP = .0000 IN. YT
REFZ = 1250.3000 IN.	ZRP = 447.0000 IN. ZT
SCALE = .0100	

AEDC VA-422(1A-37), CRAYET WRIGHT 583

AEDC VA-422(1A-37), CRAYET WRIGHT 583

## PARAMETRIC DATA

MACH = 10.000	BETA = .32236	ALPHA = -.01343	CH = -.11802	CL = .00114	CM = -.00204	CD = .01164	CA = .09612	
4.500 -9.000	- .32120	- .01222	- .11735	.00193	-.00421	.00300	.09337	
4.500 -8.000	- .31457	- .00869	- .11746	.00543	-.00757	.00674	.08673	
4.500 -7.000	- .30782	- .00746	- .11784	-.01934	.03190	.02654	.06376	
4.500 -6.000	- .30119	- .00529	- .11782	-.04222	-.02576	.03221	.07972	
4.500 -5.000	- .29523	- .00253	- .11806	-.06922	-.02166	-.00340	.07617	
4.500 -4.000	- .28938	.00037	- .11819	-.08630	-.01652	-.00308	.07347	
4.500 -3.000	- .26569	.00262	- .11808	-.11498	-.01108	-.00382	.07168	
4.500 -2.000	- .23169	.00956	- .12015	-.13568	-.00560	-.00609	.07055	
4.500 -1.000	- .20018	.01932	- .12731	-.14395	-.00211	-.01103	.07020	
4.500 .000	- .27326	.02036	- .12678	-.16366	.00379	-.01262	.06869	
4.500 1.000	- .23716	.02177	- .12597	-.18335	.00861	-.01426	.06693	
4.500 2.000	- .26148	.02226	- .12546	-.20736	.01825	-.01693	.06339	
4.500 3.000	- .23557	.02501	- .12499	-.22115	.02650	-.01970	.06217	
4.500 4.000	- .26994	.02718	- .12434	-.23446	.03273	-.02169	.06293	
4.500 5.000	- .24172	.02869	- .12363	-.22754	.03875	-.02382	.06394	
4.500 6.000	- .24539	.02940	- .12288	-.22937	.04218	-.02623	.06382	
4.500 7.000	- .23667	.02733	- .12105	-.21769	.04482	-.02826	.06699	
4.500 8.000	- .23170	.02296	- .11703	-.20635	.04729	-.02932	.06691	
4.500 9.000	- .22843	.01955	- .11436	-.19740	.05155	-.02956	.06692	
4.500 10.000	- .22539	.01935	- .11374	-.19179	.05788	-.02981	.06933	
	GRADIENT	.00395	.00334	-.00075	-.00260	.00396	-.00232	-.00139

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AEDC VA-422(1A-37), CRAYET WRIGHT 583

AEDC VA-422(1A-37), CRAYET WRIGHT 583

DATE 28 OCT 74

SCIENTIFIC DNA

PIGMENTIC DATA

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REFERENCE DATA		PARAMETRIC DATA	
SCALING = 1000.000	1000.000	WARP = 1000.000 IN. X 1000.000 IN. Y	PT-JET = 1500.000
SCALING = 1000.000	1000.000	ZWARP = 447.000 IN. ZT	BETA = 1.00
SCALING = 1000.000	1000.000	XWARP = 1000.000 IN. XT	R0V1 = 1.00
SCALING = 1000.000	1000.000	YWARP = 1000.000 IN. YT	R0V2 = 1.00
SCALING = 1000.000	1000.000	ZWARP = 447.000 IN. ZT	R0V3 = 1.00

GRADIENT INDEX = 0.003 m<sup>-1</sup>

DATE 25 OCT 74

NEW YORK

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Volume 81

L-588	\$ .000	R-588	\$ .000
S-5880	\$ .000	R-588L	\$ .000
G-587	\$ 1,000	A-587	\$ 1,000

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	MACH	BETA	ALPHA	CHI	CH	CW	CV	CA
	4.500	-10.000	-.03983	.04742	-.03290	.04934	-.09166	.13086
	4.500	-9.000	-.03479	.04721	-.03276	.05035	-.08039	.14377
	4.500	-8.000	-.03245	.05054	-.03054	.05216	-.06462	.13627
	4.500	-7.000	-.03330	.05562	-.01152	.06865	-.04673	.12875
	4.500	-6.000	-.03097	.05717	-.01364	.12867	-.03703	.12043
	4.500	-5.000	-.02688	.04832	-.03055	.16619	-.03017	.11340
	4.500	-4.000	-.01943	.03676	-.03096	.20102	-.02545	.11060
	4.500	-3.000	-.01693	.02846	-.03432	.23294	-.02108	.11144
	4.500	-2.000	-.01314	.02221	-.03913	.28955	-.01961	.11312
	4.500	-1.000	-.00852	.01813	-.01331	.30184	-.01774	.11469
	4.500	0.000	-.00429	.01697	-.01496	.35820	-.01115	.11697
	4.500	1.000	-.00221	.01221	-.01415	.37813	-.01041	.11253
	4.500	2.000	-.00267	.02633	-.00974	.41440	-.01896	.11326
	4.500	3.000	-.00345	.03391	-.01424	.43698	-.02190	.11267
	4.500	4.000	-.00893	.03370	-.00776	.45146	-.02152	.11746
	4.500	5.000	-.01265	.03364	-.00298	.46702	-.02261	.11460
	4.500	6.000	-.01397	.03451	-.00377	.47993	-.01991	.11261
	4.500	7.000	-.01365	.03319	-.00393	.49233	-.01926	.11219
	4.500	8.000	-.01230	.03223	-.00332	.51607	-.02146	.11352
	4.500	9.000	-.01025	.03119	-.00366	.54127	-.02310	.11669
	4.500	10.000	-.00996	.02990	-.00407	.56932	-.02711	.12600
		10.000ENT						

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11

DATE OCT 74

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EDC VII-1211A-3n; County which is

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EXPLANATION

LEGIBILITY OF THE  
ORIGINAL PAGE IS POOR

RUN NO.	REL/0		RNL = 1.00		GRADIENT INTERVAL = -3.00/ 3.00			
	ALPHA	BETA	CH	CL	CH	CL		
4.500	-10.000	.04521	-.35238	.05865	-.05865	.05861	.05866	.23046
4.500	-9.000	.03817	-.27630	.05135	-.05906	.05096	.05097	.23047
4.500	-8.000	.03434	-.23493	.05612	-.05985	.05437	.05063	.22306
4.500	-7.000	.02973	-.22946	.07532	-.05994	.05460	.05061	.21929
4.500	-6.000	.02498	-.20254	.07191	-.05103	.05450	.05054	.21357
4.500	-5.000	.02047	-.17453	.06933	-.04146	.05671	.05053	.20734
4.500	-4.000	.01616	-.14741	.05930	-.01169	.05336	.05032	.20116
4.500	-3.000	.01159	-.12144	.04964	-.01140	.05582	.05036	.19471
4.500	-2.000	.00753	-.09618	.03913	-.01168	.05594	.05053	.18913
4.500	-1.000	.00351	-.07139	.03196	-.01168	.05599	.05050	.16394
4.500	.000	-.00134	-.04795	.02239	-.01212	.06533	.05053	.17973
4.500	1.000	-.00235	-.02375	.01792	-.01274	.06578	.05050	.17644
4.500	2.000	-.01066	.00170	.00941	-.01574	.06744	-.05056	.17594
4.500	3.000	-.01535	.02757	.00354	-.01523	.06836	-.05207	.17220
4.500	4.000	-.01987	.05371	.00357	-.01648	.06937	-.05285	.17032
4.500	5.000	-.02426	.07891	-.01697	-.01742	.06939	-.05321	.16841
4.500	6.000	-.02776	.10269	-.02446	-.01653	.06969	-.05326	.16566
4.500	7.000	-.03116	.12594	-.03140	-.01695	.06985	-.05293	.16262
4.500	8.000	-.03355	.14937	-.03774	-.01696	.07013	-.05231	.15969
4.500	9.000	-.03750	.17365	-.04776	-.01962	.07026	-.05187	.15723
4.500	10.000	-.04137	.19765	-.05133	-.01952	.07036	-.05134	.15524
GRADIENT		-.00349	.02511	-.00750	-.01053	-.00540	-.00341	-.00396

DATE 25 OCT 74

AEDC VA-422(14-97), CREST WRIGHT 800

(MTO16) 110 APR 74)

REFERENCE DATA

XREF = 2650.0000 90. RT.  
YREF = 1250.3000 IN.  
ZREF = 1250.3000 IN.  
SCALE = .0100.

PARAMETRIC DATA

L-SUB = .0000 R-SUB = 2.0000  
SREF = .0000 RFL = 1.760  
PT-JET = .0000 ALPHA = .000

RUN NO. 02/0 RFL = 1.0 GRADIENT INTERVAL = -5.0V 5.0V

MACH	BETA	ALPHA	CN	CLW	CY	CM	CL	CA
4.500	-10.000	-13268	.04606	.01206	.20078	-.06900	.03336	.20271
4.500	-9.000	-12659	.04593	.01334	.20022	-.07724	.02973	.19504
4.500	-8.000	-12037	.04590	.01619	.22337	-.06713	.02636	.19550
4.500	-7.000	-11434	.03226	.01930	.19110	-.05714	.02294	.19232
4.500	-6.000	-10832	.01604	.02251	.18116	-.04787	.02100	.18930
4.500	-5.000	-10453	.03979	.02892	.12811	-.03623	.01681	.16932
4.500	-4.000	-9989	.06324	.02759	.09681	-.02805	.01291	.14035
4.500	-3.000	-9590	.06712	.03032	.06330	-.01864	.00932	.10213
4.500	-2.000	-9213	.06841	.03198	.03571	-.00507	.00526	.10050
4.500	-1.000	-8969	.06813	.03411	.00501	.00032	.00291	.11868
4.500	.000	-8759	.06775	.03144	.02340	.00373	-.00063	.11073
4.500	1.000	-8539	.06917	.03297	.05377	.01959	-.00397	.10768
4.500	2.000	-8339	.06922	.03341	.08682	.02854	-.00764	.10247
4.500	3.000	-8200	.06770	.03231	.11799	.03600	.01128	.10445
4.500	4.000	-8066	.06750	.03214	.14941	.04712	-.01461	.10643
4.500	5.000	-8036	.06621	.03031	.16005	.05579	-.01623	.10756
4.500	6.000	-8019	.06416	.02780	.21145	.06467	-.02173	.10932
4.500	7.000	-8003	.06238	.02581	.24531	.07341	-.02560	.11126
4.500	8.000	-8004	.05967	.02398	.28051	.08686	-.02975	.11384
4.500	9.000	-8005	.05751	.02160	.31597	.09800	-.03393	.11630
4.500	10.000	-8026	.05544	.01924	.35275	.10995	-.03832	.11986
	11.000	-8047	.05222	.00700	.3952	.02077	-.04586	.12348
	12.000	-8068					-.00027	

DATE 29 OCT 74

AEDC VA-422(1A-37). CRIVET WRIGHT site

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REFERENCE DATA

STEP = 2000.0000 SQ.FT.  
LND = 1200.3000 IN.  
STEP = 1800.3000 IN.  
SCALE = .0100

PARAMETRIC DATA

L-358 = .000  
S800 = .200  
PT-JET = 750.000  
BETA = .000

RUN NO. 84' 0 RAV = 1.00 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	ON	OFF	CY	CTN	CL	CA
4.500	-10.000	.1725	.22847	.06164	-.23497	.34691	-.01219	.22376
4.500	-9.500	.16103	.22739	.07342	-.23072	.04499	-.01219	.22076
4.500	-8.000	.17938	.20195	.08478	-.24598	.02820	-.01231	.21534
4.500	-7.000	.17865	.17643	.05375	-.26109	.04134	-.01232	.20943
4.500	-6.000	.17669	.15052	.04573	-.23501	.03949	-.01261	.21356
4.500	-5.000	.17438	.12364	.03897	-.22793	.03758	-.01280	.19702
4.500	-4.000	.17226	.10206	.03143	-.21988	.03477	-.01277	.19042
4.500	-3.000	.16981	.07918	.02412	-.21267	.03259	-.01270	.18438
4.500	-2.000	.16577	.05705	.01735	-.20430	.03050	-.01261	.17757
4.500	-1.000	.16234	.03627	.01171	-.19864	.02846	-.01231	.17129
4.500	.000	.15928	.01760	.00725	-.18966	.02673	-.01324	.16584
4.500	1.000	.15616	.00737	.00365	-.19351	.02512	-.01371	.16019
4.500	2.000	.15295	.01911	.00015	-.17805	.02405	-.01420	.15471
4.500	3.000	.14970	.03812	-.00393	-.17351	.02335	-.01446	.14932
4.500	4.000	.14724	.03688	-.00772	-.16887	.02273	-.01452	.14442
4.500	5.000	.14547	.03498	-.01151	-.16756	.02237	-.01473	.13956
4.500	6.000	.14390	.03260	-.01613	-.16500	.02222	-.01485	.13410
4.500	7.000	.14470	.11679	-.02143	-.16486	.02186	-.01489	.12919
4.500	8.000	.14636	.13877	-.02716	-.16364	.02059	-.01396	.12477
4.500	9.000	.14981	.16250	-.03526	-.16203	.01859	-.01313	.12038
4.500	10.000	.15362	.18726	-.03996	-.16072	.01641	-.01257	.11658
	GRADIENT	-.00307	.01982	-.00467	.00623	-.00131	-.00263	-.00376

DATE 29 OCT 74

AEDC VA-42211A-37, CRATE: WEIGHT 988

REFERENCE DATA

WT = 2800,000 LB. FT. XMAP = 1002,000 IN. XT  
LWT = 1250,300 IN. YMAP = ,000 IN. YT  
BMAP = 1250,300 IN. ZMAP = 447,000 IN. ZT  
SCALE = .0100

ATL0001 ( 16 APR 74 )

PARAMETRIC DATA

L-388 = ,000 R-388 = 2,000  
SRPOS = ,200 RML = 1,760  
PT-JET = 750,000 ALPHA = ,000

RUN NO.	GV 0	RVAL = 1.00	GRADIENT INTERVAL = -5.00 5.00
MACH	BETA	ALPHA	CN
4.500	-10.000	-,11395	,0002
4.500	-9.000	-,11051	-,00050
4.500	-8.000	-,10414	-,00279
4.500	-7.000	-,06512	-,02876
4.500	-6.000	-,06331	-,02756
4.500	-5.000	-,06264	-,02661
4.500	-4.000	-,06182	-,02585
4.500	-3.000	-,06008	-,02514
4.500	-2.000	-,05891	-,02475
4.500	-1.000	-,05777	-,02316
4.500	.000	-,05656	-,02235
4.500	1.000	-,05506	-,02155
4.500	2.000	-,05116	-,01979
4.500	3.000	-,04950	-,01820
4.500	4.000	-,04746	-,01676
4.500	5.000	-,04547	-,01521
4.500	6.000	-,04345	-,01369
4.500	7.000	-,04112	-,01207
4.500	8.000	-,03938	-,01051
4.500	9.000	-,03750	-,00896
4.500	10.000	-,03537	-,00727
GRADIENT	-	-,00106	-,00059

CY CN CR

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CB

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CD

CE

CF

CG

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CL

CM

CP

CR

CS

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DATE 28 OCT 74

AEDC VT-42211A-371, CRUET WEIGHT SRS

REFERENCE DATA

REFP = 2850.0, MARGIN = .17.  
URGP = 1250.3000 IN.  
SREF = 1250.3000 IN.  
SCALE = .0100

PARAMETRIC DATA

L-REF = .000  
REFP = .000  
PI-JET = 1000.000  
BETA = .000

RUN NO. 65/0 RFLV = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACR	ALPHA	BETA	ON	C0	C1	C2	C3	C4
4.500	-10.000	.35463	-.16163	.05749	-.34756	.01625	-.01163	.16914
4.500	-9.000	.35922	-.16976	.06040	-.34421	.01669	-.01182	.16339
4.500	-8.000	.35712	-.14909	.04274	-.33994	.01250	-.01216	.17855
4.500	-7.000	.35269	-.12391	.03701	-.33672	.01606	-.01255	.17457
4.500	-6.000	.34794	-.08692	.03626	-.32165	.01286	-.01294	.17570
4.500	-5.000	.34253	-.06037	.02910	-.22462	.01250	-.01321	.16371
4.500	-4.000	.34035	-.06135	.02935	-.22310	.01697	-.01300	.15926
4.500	-3.000	.33949	-.06951	.02227	-.32169	.01395	-.01332	.15326
4.500	-2.000	.33936	-.06947	.01110	-.32227	.01251	-.01354	.14874
4.500	-1.000	.33792	-.05111	.01243	-.30840	.01242	-.01442	.14077
4.500	0.000	.33626	-.01798	.02600	-.30821	.01073	-.01515	.13467
4.500	1.000	.33634	.01694	.00330	-.32410	.01250	-.01545	.12861
4.500	2.000	.33021	.01351	.01030	-.29876	.01254	-.01534	.12272
4.500	3.000	.32357	.00798	-.00263	-.29740	.00719	-.01454	.11774
4.500	4.000	.31941	.00414	-.00663	-.22076	.00372	-.01534	.11385
4.500	5.000	.31641	.00226	-.01000	-.27141	.00431	-.01531	.11384
4.500	6.000	.31384	.01575	-.01252	-.27171	.00393	-.01576	.10792
4.500	7.000	.31132	.01517	-.01417	-.26934	.00376	-.01654	.10369
4.500	8.000	.30769	.01619	-.01749	-.26659	.00376	-.01642	.10369
4.500	9.000	.30596	.01665	-.01960	-.26253	.00393	-.01555	.10368
4.500	10.000	.30404	.01931	-.02236	-.25933	.00203	-.00207	.01366
		GRADIENT	-.00253	.00807				

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10 APR 74

AFDC VA-422 (1A-37), ORBIT WEIGHT SEA

(11022) (18 APR 74)

## REFERENCE DATA

XREF = 2000.0000 88.FT.  
 UREF = 1250.3000 IN.  
 BREF = 1250.3000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

L-SR3 = .000 R-SR3 = 2.000  
 SRBDS = .200 RVAL = 1.750  
 PT-JET = 1500.000 ALFA = .0000

RUN NO. 00/ 0 RVAL = 1.80 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CLW	CY	CTN	CD	CA
4.500	-10.000	-.06231	.02251	.00167	.03994	-.00373	.02233	.15510
4.500	-9.000	-.06285	.02063	.00096	.01033	-.00335	.01679	.14630
4.500	-8.000	-.06116	.01692	-.00013	.00472	-.00446	.01123	.14531
4.500	-7.000	-.05612	.01328	.00298	-.07930	-.04376	.00678	.13581
4.500	-6.000	-.05226	.00842	.00867	-.11196	-.03593	.00315	.13254
4.500	-5.000	-.05103	.00907	.00799	-.14930	-.02613	.00001	.13040
4.500	-4.000	-.05024	-.00036	.00669	-.17921	-.02363	-.00266	.12936
4.500	-3.000	-.04553	-.00724	.01461	-.21674	-.01370	-.00695	.11381
4.500	-2.000	-.04210	-.00777	.01627	-.24458	-.00319	-.00153	.13616
4.500	-1.000	-.04146	-.00496	.01444	-.29726	-.00392	-.01266	.13635
4.500	.000	-.04051	.00005	.01068	-.31000	.01220	-.01464	.13373
4.500	1.000	-.04081	.00369	.01712	-.33135	.01175	-.01653	.12983
4.500	2.000	-.04221	.00661	.01149	-.35041	.02147	-.01848	.12611
4.500	3.000	-.04331	.00846	.00968	-.37273	.02177	-.02033	.12292
4.500	4.000	-.04393	.00902	-.00139	-.39106	.02322	-.02032	.12031
4.500	5.000	-.04422	.00912	-.00256	-.40963	-.02357	-.02105	.11968
4.500	6.000	-.04470	.00975	-.00344	-.42934	.02474	-.02216	.11991
4.570	7.000	-.04530	.01175	-.00492	-.45086	.02627	-.02348	.12354
4.500	8.000	-.04383	.01110	-.00523	-.47747	.03144	-.02669	.12217
4.500	9.000	-.04331	.00962	-.00541	-.50759	.03387	-.02875	.12458
4.500	10.000	-.04372	.00750	-.00526	-.53666	.04077	-.03214	.12763
	GRADIENT	.00001	.00136	-.00151	-.02697	.00956	-.00215	-.00139

DATE 28 OCT 74

## AFDC VA-42211A-371. CRB/ET WRIGHT SGT

## REFERENCE DATA

XREF = 2000.0000 SD.FT.  
 YREF = 1200.0000 IN.  
 ZREF = 1000.0000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

(MTO221) ( 18 APR 74 )

L-SR3 = .000  
 SRPOS = .300  
 PT-JET = 1000.000  
 BETA = .000

RUN NO. 04/ 0 RFL = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CX	CY	CZ	CL	CD
4.500	-10.000	-.02719	-.07323	-.03700	-.15395	.00907	-.01609
4.500	-9.000	-.02725	-.04694	-.04575	-.16316	.03322	-.00842
4.500	-8.000	-.02733	-.01500	-.05477	-.17222	.03650	-.00908
4.500	-7.000	-.03035	.01535	-.06463	-.18273	.10441	-.01997
4.500	-6.000	-.03136	.04996	-.07681	-.19216	.10941	-.02592
4.500	-5.000	-.03217	.08953	-.08916	-.20163	.11432	-.02117
4.500	-4.000	-.03149	.11954	-.10238	-.21073	.11853	-.02063
4.500	-3.000	-.02680	.15222	-.11357	-.21779	.11923	-.01968
4.500	-2.000	-.02114	.18271	-.12327	-.22356	.11953	-.01899
4.500	-1.000	-.01352	.21086	-.13135	-.22667	.11814	-.01905
4.500	.000	-.00676	.23320	-.13804	-.23935	.11933	-.02134
4.500	1.000	.00087	.25108	-.14108	-.25374	.12236	-.02444
4.500	2.000	.00370	.26811	-.14391	-.26298	.12412	-.02956
4.500	3.000	.00720	.27799	-.14935	-.26945	.12613	-.03398
4.500	4.000	.00822	.29246	-.14939	-.27227	.12838	-.03259
4.500	5.000	.00959	.31130	-.15472	-.27346	.13106	-.03441
4.500	6.000	.00954	.32245	-.16159	-.27569	.13593	-.03895
4.500	7.000	.00300	.35938	-.16802	-.27207	.13284	-.03616
4.500	8.000	-.00819	.37756	-.17532	-.27294	.13581	-.03861
4.500	9.000	-.01216	.40370	-.18394	-.27391	.13833	-.03701
4.500	10.000	-.01255	.43195	-.19174	-.27274	.13791	-.03622
	GRADIENT	.00456	.02164	-.00763	-.00760	.00159	-.00359

DATE 29 OCT 74

## AEDC VA-422(1A-37). OBLT WRIGHT SRA

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## REFERENCE DATA

BREF	=	2650.0000 SQ.FT.	XREF	=	1032.0000 IN. XT
LZEF	=	1250.3000 IN.	YREF	=	.0000 IN. YT
BREF	=	1250.3000 IN.	ZREF	=	447.0000 IN. ZT
SCALE	=	.0100			

## PARAMETRIC DATA

L-SUB	=	.000	R-SUB	=	.000
SERPOS	=	.300	ENCL	=	.000
PT-JET	=	1500.000	ALPHA	=	.000

RUN NO. 85/0 RNL = 1.51 GRADIENT INTERVAL = -5.00 5.00

MACH	BETA	ALPHA	CN	CL	CD	CH	CA
4.500	-10.000	-.12444	.14833	-.09955	.08806	.01276	.01630
4.500	-9.000	-.12243	.15659	-.10460	.04114	.02076	.00984
4.500	-8.000	-.12139	.16459	-.10929	.01058	.03122	.19316
4.500	-7.000	-.11938	.17037	-.11216	-.02533	.04320	.02317
4.500	-6.000	-.11654	.17486	-.11423	-.03953	.09361	.19493
4.500	-5.000	-.11282	.17747	-.11467	-.09323	.06747	.02027
4.500	-4.000	-.10836	.18123	-.11540	-.12752	.07722	.01077
4.500	-3.000	-.10601	.18791	-.11853	-.15831	.08784	.01397
4.500	-2.000	-.10331	.19543	-.12239	-.16923	.09831	.01622
4.500	-1.000	-.10046	.22266	-.12556	-.22212	.11115	.03912
4.500	.000	-.09863	.21247	-.13106	-.23233	.12538	.02163
4.500	1.000	-.10361	.22507	-.13971	-.28614	.14369	.02820
4.500	2.000	-.11016	.22737	-.14432	-.32773	.16463	.03046
4.500	3.000	-.11056	.22642	-.14419	-.37481	.18571	.03636
4.500	4.000	-.10771	.22024	-.13860	-.42891	.21073	.04079
4.500	5.000	-.09898	.20111	-.12520	-.48236	.25832	.04432
4.500	6.000	-.08930	.18309	-.11287	-.53507	.29364	.04935
4.500	7.000	-.08435	.17248	-.10532	-.59004	.33163	.05657
4.500	8.000	-.08254	.17028	-.10230	-.65941	.39166	.07683
4.500	9.000	-.08347	.17430	-.10774	-.68756	.29447	.08079
4.500	10.000	-.08166	.18317	-.11232	-.70785	.29111	.09397
GRADIENT		.00044	.00429	-.00284	-.03732	.01679	.00426

ATTACHMENT (16 APR 74)

DATE 28 OCT 74

## ADDC WA-6221A-57, CREST WRIGHT SPC

## REFERENCE DATA

REF = 2000,000 SG.FT.    DREF = 1023,000 IN. RT  
 UFFF = 1250,000 IN.    TREF = 2000 IN. RT  
 BPF = 1250,000 IN.    ZREF = 447,000 IN. RT  
 SCALZ = .0100

RUN NO. 7710 RFL = 1.87 GRADIENT INTERVAL = -3.00/-5.00

## PARAMETRIC DATA

L-SG = .0000 R-SG = .0000  
 SRG = .0000 R-SL = .0000  
 PT-JET = .0000 BETA = .0000

MACH	ALPHA	BETA	ON	CL <sub>0</sub>	CD <sub>0</sub>	CM <sub>0</sub>	CL	CD	CA
4.500	-10.000	.00260	-.30592	.10265	-.00274	.00116	.00000	.00000	.00000
4.500	-9.000	.00266	-.26693	.05693	-.00274	.00097	.00007	.00007	.00000
4.500	-8.000	.00315	-.26338	.06156	-.00243	.00096	.00006	.00006	.00000
4.500	-7.000	.00324	-.23737	.06030	-.00249	.00097	.00007	.00007	.00000
4.500	-6.000	.00336	-.22560	.06584	-.00216	.00092	.00006	.00006	.00000
4.500	-5.000	.00338	-.19217	.06938	-.00235	.00093	.00007	.00007	.00000
4.500	-4.000	.00336	-.19509	.05976	-.00287	.00092	.00006	.00006	.00000
4.500	-3.000	.00337	-.12854	.03132	-.00246	.00093	.00007	.00007	.00000
4.500	-2.000	.00327	-.03447	.03226	-.00246	.00094	.00007	.00007	.00000
4.500	-1.000	.00329	-.07797	.03882	-.00246	.00095	.00008	.00008	.00000
4.500	0.000	.00329	-.05462	.02891	-.00241	.00094	.00007	.00007	.00000
4.500	1.000	.00310	-.03150	.03150	-.00242	.00095	.00008	.00008	.00000
4.500	2.000	.00314	-.01523	.01523	-.00246	.00096	.00008	.00008	.00000
4.500	3.000	.00315	-.01374	.01374	-.00246	.00097	.00008	.00008	.00000
4.500	4.000	.00315	-.01225	.01225	-.00246	.00098	.00009	.00009	.00000
4.500	5.000	.00316	-.01064	.01064	-.00247	.00099	.00009	.00009	.00000
4.500	6.000	.00317	-.00947	.00947	-.00246	.00100	.00010	.00010	.00000
4.500	7.000	.00315	-.00895	.00895	-.00247	.00101	.00010	.00010	.00000
4.500	8.000	.00315	-.00845	.00845	-.00246	.00102	.00010	.00010	.00000
4.500	9.000	.00314	-.00794	.00794	-.00246	.00103	.00010	.00010	.00000
4.500	10.000	.00315	-.00746	.00746	-.00245	.00104	.00010	.00010	.00000

ATTACHMENT (10 APR 74)

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DATE 29 OCT 74

AEDC VA-422(1A-57), CRIST/WRIGHT 388

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REFLORN (10 APR 74)

REFERENCE DATA

SREF = 2650.0000 SQ. FT.  
URF = 1250.3000 IN.  
URF = 1250.3000 IN.  
SREF = 1250.3000 IN.  
SCALE = .0100

PARAMETRIC DATA

L-SUB = 1032.0000 IN. XT  
TMRP = .0000 IN. YT  
ZMRP = 447.0000 IN. ZT

RUN NO. 800 D RFLN = 1.87 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	BETA	CN	CLN	CR	CN	CL	CA
4.500	-10.000	-.00282	.28988	.07073	-.00281	.01275	.00012	.21063
4.500	-9.000	-.00104	.24412	.06981	-.00287	.01322	.00093	.20767
4.500	-8.000	-.001610	.21887	.05917	-.00293	.01395	.00093	.20424
4.500	-7.000	-.002829	.19177	.05214	-.00356	.02140	.00043	.20213
4.500	-6.000	-.01077	.16337	.04284	-.00695	.02691	.00019	.19969
4.500	-5.000	-.01413	.12333	.02920	-.00861	.02897	.00171	.19731
4.500	-4.000	-.01786	.08319	.01072	-.00633	.03491	.00476	.19182
4.500	-3.000	-.02219	.04223	-.00945	-.00410	.04038	.00834	.18660
4.500	-2.000	-.02682	-.00317	.02638	-.01111	.04553	.01208	.18168
4.500	-1.000	-.03111	.03413	-.04688	-.07781	.05039	.01566	.17763
4.500	.000	-.03457	.07073	-.06360	-.08937	.05445	.01660	.17348
4.500	1.000	-.03722	.10869	-.07954	-.08617	.05763	.02158	.17036
4.500	2.000	-.03829	.13986	-.09322	-.09171	.05987	.02376	.16827
4.500	3.000	-.03979	.17170	-.10533	-.09367	.06168	.02531	.16759
4.500	4.000	-.03950	.19695	-.14453	-.08997	.06391	.02579	.16620
4.500	5.000	-.03966	.21669	-.11732	-.10412	.06993	.02626	.16498
4.500	6.000	-.03924	.22972	-.11285	-.10756	.06394	.02684	.16358
4.500	7.000	-.03455	.23966	-.11510	-.11274	.06788	.02948	.15573
4.500	8.000	-.03982	.26519	-.12256	-.11266	.06923	.02987	.15135
4.500	9.000	-.03822	.29387	-.13199	-.11697	.07125	.02180	.14863
4.500	10.000	-.04120	.31566	-.14768	-.11244	.07285	.02273	.14568
	GRADIENT	-.00266	.03933	-.01531	-.00944	.03360	-.00022	-.00021

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

DATE 29 OCT 74

## AEDC VA-422(1A-37). CROSST WRIGHT SAE

## REFERENCE DATA

XDP = 2850.0000 SQ.FT.  
 LDP = 1200.3000 IN.  
 YDP = .0000 IN. YT  
 ZDP = 447.0000 IN. ZT  
 SCALZ = .0100

ATTACHMENT ( 18 APR 74 )

## PARAMETRIC DATA

L-350 = .000  
 SR500 = .300  
 PT-JET = 750.000 ALPHA = .000

RUN NO. 79/0 RVAL = 1.07 GRADIENT INTERVAL = -5.00 5.00

MACH	BETA	ALPHA	C1	C4	C7	C10	C13	C16
4.500	-10.000	-1.5339	.01778	-.01288	.23977	-.07074	.02168	.16763
4.500	-9.000	-1.4961	-.01262	.01152	.22227	-.06758	.02268	.16252
4.500	-8.000	-1.4747	-.00732	-.01894	.16690	-.04476	.01757	.17327
4.500	-7.000	-1.4564	-.00231	-.02229	.15140	-.03246	.01253	.17679
4.500	-6.000	-1.4350	.00345	-.02565	.11577	-.01965	.00791	.17468
4.500	-5.000	-1.4204	.00706	-.02833	.08100	-.00624	.00361	.17233
4.500	-4.000	-1.4038	.01106	-.03095	.04932	.00409	-.00102	.17117
4.500	-3.000	-1.3860	.01564	-.03349	.01030	.01794	-.00479	.17053
4.500	-2.000	-1.3668	.02007	-.03637	.02243	.03079	-.00867	.17207
4.500	-1.000	-1.4000	.02792	-.04217	.03826	.04349	-.01322	.17190
4.500	.000	-1.4195	.03712	-.04644	.04324	.03966	-.01742	.17253
4.500	1.000	-1.4349	.04712	-.05656	.12590	.06563	-.02206	.17291
4.500	2.000	-1.4560	.05629	-.06116	.18695	.08123	-.02692	.17386
4.500	3.000	-1.4889	.06809	-.06934	.20250	.09464	-.03192	.17679
4.500	4.000	-1.5169	.07773	-.07610	.23946	.10747	-.03584	.16114
4.500	5.000	-1.5711	.08816	-.08443	.27701	.12095	-.04098	.16374
4.500	6.000	-1.6234	.09939	-.09337	.31343	.13373	-.04531	.16579
4.500	7.000	-1.6669	.10783	-.09960	.33219	.14740	-.04956	.16803
4.500	8.000	-1.6720	.11779	-.10514	.35327	.16292	-.05398	.15082
4.500	9.000	-1.7053	.12729	-.11257	.43607	.17954	-.06696	.15952
4.500	10.000	-1.7500	.13755	-.11989	.46114	.19638	-.06462	.16035
	GRAD15.1	-.03153	.00638	-.00574	.03566	.01286	-.01447	.00120



DATE 20 OCT 74

ADDC VA-422(IA-37) - CRV/ET W/initial str.

## REFERENCE DATA

XREF = 2850.0000 50.0T.  
 YREF = 1250.3000 IN.  
 ZREF = 1250.3000 IN.  
 SCALE = .0100

CYCLOM ( 16 APR 74 )

## PARAMETRIC DATA

XREF = 1032.0000 IN. YT  
 YREF = .0000 IN. YT  
 ZREF = 447.0000 IN. ZT

RUN NO.	62/ 0	RVAL = 1.07	GRADIENT INTERVAL = -9.00/ 5.00
MACH	BETA	ALPHA	CN
4.500	-10.000	-.16789	.10522
4.500	-9.000	-.16139	.10570
4.500	-8.000	-.15532	.10694
4.500	-7.000	-.15039	.11010
4.500	-6.000	-.14846	.11841
4.500	-5.000	-.14691	.12637
4.500	-4.000	-.14426	.13767
4.500	-3.000	-.14398	.14933
4.500	-2.000	-.14393	.16050
4.500	-1.000	-.14529	.17836
4.500	.000	-.15079	.19277
4.500	1.000	-.15729	.20532
4.500	2.000	-.16233	.21376
4.500	3.000	-.16200	.21740
4.500	4.000	-.16010	.21577
4.500	5.000	-.15274	.20852
4.500	6.000	-.14576	.19561
4.500	7.000	-.13808	.18293
4.500	8.000	-.13332	.17648
4.500	9.000	-.13196	.16220
4.500	10.000	-.12889	.14959
GRADIENT		-.00179	.02957

CY  
 CLW  
 CIN  
 CIR  
 CR  
 SRB03 = .0000  
 PT-JET = 1500.000 ALPA = .0000

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DATE 22 OCT 74

AEDC VA-82211A-571, GROUT WADOTH 658

REFERENCE DATA

REFD = 2000.0000 IN. DREF = 1000.0000 IN. XT  
LREF = 1200.3000 IN. YREF = 1000.0000 IN. YT  
BREF = 1200.3000 IN. ZREF = 447.0000 IN. ZT  
SCALZ = .0100

RAN NO. 150 RFL = 1.00 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	CN	CLN	CF	CTN	CL	CA
4.500	-10.000	.02768	-.17433	-.45680	-.03410	-.00339	-.00054	-.00239
4.500	-9.000	.02608	-.16987	-.46519	-.03510	-.00507	-.00117	-.00317
4.500	-8.000	.03135	-.12469	-.46814	-.03699	-.00595	-.00203	-.00623
4.500	-7.000	.03762	-.09206	-.46965	-.03675	-.01115	-.00363	-.01084
4.500	-6.000	.04169	-.08912	-.46930	-.04274	-.01114	-.00714	-.01692
4.500	-5.000	.03659	-.03312	-.47296	-.04336	-.00221	-.00166	-.00703
4.500	-4.000	.02655	-.01430	-.47670	-.03759	-.00250	-.00206	-.00763
4.500	-3.000	.02100	.01689	-.47716	-.03433	-.00203	-.00222	-.00760
4.500	-2.000	.01828	.02611	-.47573	-.02875	-.00069	-.00221	-.01681
4.500	-1.000	.01562	.04580	-.47532	-.02536	-.00059	-.00235	-.01686
4.500	.000	.01410	.06259	-.47432	-.02027	-.00026	-.00194	-.01685
4.500	1.000	.01274	.07692	-.47653	-.02111	-.00134	-.00216	-.01796
4.500	2.000	.01122	.08614	-.47176	-.01524	-.00224	-.00150	-.01732
4.500	3.000	.00768	.11224	-.46860	-.00634	-.00669	-.00651	-.01926
4.500	4.000	.00539	.12911	-.46617	-.00242	-.00222	-.00026	-.01926
4.500	5.000	.00468	.14174	-.46377	-.00373	-.00356	-.00059	-.01926
4.500	6.000	.00446	.19951	-.46255	-.00315	-.00214	-.00137	-.01927
4.500	7.000	.00371	.17937	-.46359	-.00333	-.00147	-.00212	-.01973
4.500	8.000	.00297	.19274	-.46195	-.00395	-.00226	-.00222	-.01963
4.500	9.000	.00251	.21371	-.46196	-.00311	-.00369	-.00360	-.01924
4.500	10.000	.00265	.23782	-.46350	-.00110	-.00226	-.00113	-.01924
	GRADIENT		.01796					

(11 APR 74)

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PARAMETRIC DATA

L-REF = 1.000 RFL = 1.000 R-REF = 1.000  
REFS = 1.000 RFLS = 1.100 RFLS = 1.000  
PT-JET = 1000.000 BETA = .0000  
SCALZ = .0100

DATE 20 OCT 74

ADDC VA-422(IA-37), OBJECT WORD 320

## REFERENCE DATA

XREF = 2000.0000 50. FT.  
 YREF = 1200.0000 IN.  
 ZREF = 1200.0000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

L-300 = 1.000 R-300 = 1.000  
 SRPDA = 1.100 RVNL = 1.400  
 PT-JET = 1500.000 BETA = .0000

RUN NO. 14/ 0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CLW	CT	CY	CN	CL	CD	CA
4.500	-10.000	.01663	-.20900	-.30329	-.00315	.00400	-.00047	-.01545		
4.500	-9.000	.01674	-.17730	-.31604	-.02796	.00115	.00044	-.01595		
4.500	-8.000	.02313	-.13726	-.32601	-.02385	-.00275	.00134	-.01790		
4.500	-7.000	.02238	-.11237	-.33346	-.0168*	-.00561	.00216	-.01673		
4.500	-6.000	.01617	-.09294	-.33939	-.01469	-.00426	.00151	-.01545		
4.500	-5.000	.01206	-.07973	-.33917	-.01320	-.00395	.00120	-.01642		
4.500	-4.000	.02340	-.02359	-.33903	-.02686	-.00080	-.00050	-.02462		
4.500	-3.000	.01942	-.03933	-.33153	-.02937	.00076	-.00073	-.02681		
4.500	-2.000	.01964	-.01437	-.33477	-.02993	.00096	-.00116	-.02767		
4.500	-1.000	.01898	.00919	-.33033	-.02616	.00161	-.00116	-.02684		
4.500	.000	.01893	.02791	-.33614	-.02248	-.00001	-.00141	-.03012		
4.500	1.000	.01743	.04950	-.33931	-.02011	-.00033	-.00149	-.03022		
4.500	2.000	.01560	.06771	-.33906	-.01668	-.00091	-.00133	-.03117		
4.500	3.000	.01593	.08572	-.34391	-.01401	-.00226	-.00079	-.03231		
4.500	4.000	.01697	.10135	-.34363	-.01316	-.00412	-.00011	-.03393		
4.500	5.000	.01693	.11953	-.34604	-.01154	-.00226	-.00029	-.03356		
4.500	6.000	.01950	.13962	-.34696	-.00910	-.00050	-.00037	-.03637		
4.500	7.000	.01640	.15940	-.35326	-.00909	-.00347	-.00033	-.03713		
4.500	8.000	.01695	.18026	-.35339	-.00940	-.00334	-.00072	-.03660		
4.500	9.000	.01944	.20336	-.35679	-.00974	-.00396	-.00102	-.03693		
4.500	10.000	.02010	.21857	-.35690	-.00774	-.00387	-.00174	-.04131		
	GRADIENT	.00002	.01692	-.00101	-.00120	-.00046	-.00011	-.00135		

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071032 6 10 APR 74 1

DATE 20 OCT 74

ADDC VA-422(IA-37). CREDIT WORTH 300

REFERENCE DATA

REFP = 2000.0000 IN. RT.  
REFP = 1250.0000 IN.  
REFP = 1250.0000 IN.  
SCALE = .0100

PARAMETRIC DATA

MACH	BETA	ALPHA	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	G16	G17	G18	G19	G20	G21	G22	G23	G24	G25	G26	G27	G28	G29	G30	G31	G32	G33	G34	G35	G36	G37	G38	G39	G40	G41	G42	G43	G44	G45	G46	G47	G48	G49	G50	G51	G52	G53	G54	G55	G56	G57	G58	G59	G60	G61	G62	G63	G64	G65	G66	G67	G68	G69	G70	G71	G72	G73	G74	G75	G76	G77	G78	G79	G80	G81	G82	G83	G84	G85	G86	G87	G88	G89	G90	G91	G92	G93	G94	G95	G96	G97	G98	G99	G100	G101	G102	G103	G104	G105	G106	G107	G108	G109	G110	G111	G112	G113	G114	G115	G116	G117	G118	G119	G120	G121	G122	G123	G124	G125	G126	G127	G128	G129	G130	G131	G132	G133	G134	G135	G136	G137	G138	G139	G140	G141	G142	G143	G144	G145	G146	G147	G148	G149	G150	G151	G152	G153	G154	G155	G156	G157	G158	G159	G160	G161	G162	G163	G164	G165	G166	G167	G168	G169	G170	G171	G172	G173	G174	G175	G176	G177	G178	G179	G180	G181	G182	G183	G184	G185	G186	G187	G188	G189	G190	G191	G192	G193	G194	G195	G196	G197	G198	G199	G200	G201	G202	G203	G204	G205	G206	G207	G208	G209	G210	G211	G212	G213	G214	G215	G216	G217	G218	G219	G220	G221	G222	G223	G224	G225	G226	G227	G228	G229	G230	G231	G232	G233	G234	G235	G236	G237	G238	G239	G240	G241	G242	G243	G244	G245	G246	G247	G248	G249	G250	G251	G252	G253	G254	G255	G256	G257	G258	G259	G260	G261	G262	G263	G264	G265	G266	G267	G268	G269	G270	G271	G272	G273	G274	G275	G276	G277	G278	G279	G280	G281	G282	G283	G284	G285	G286	G287	G288	G289	G290	G291	G292	G293	G294	G295	G296	G297	G298	G299	G300	G301	G302	G303	G304	G305	G306	G307	G308	G309	G310	G311	G312	G313	G314	G315	G316	G317	G318	G319	G320	G321	G322	G323	G324	G325	G326	G327	G328	G329	G330	G331	G332	G333	G334	G335	G336	G337	G338	G339	G340	G341	G342	G343	G344	G345	G346	G347	G348	G349	G350	G351	G352	G353	G354	G355	G356	G357	G358	G359	G360	G361	G362	G363	G364	G365	G366	G367	G368	G369	G370	G371	G372	G373	G374	G375	G376	G377	G378	G379	G380	G381	G382	G383	G384	G385	G386	G387	G388	G389	G390	G391	G392	G393	G394	G395	G396	G397	G398	G399	G400	G401	G402	G403	G404	G405	G406	G407	G408	G409	G410	G411	G412	G413	G414	G415	G416	G417	G418	G419	G420	G421	G422	G423	G424	G425	G426	G427	G428	G429	G430	G431	G432	G433	G434	G435	G436	G437	G438	G439	G440	G441	G442	G443	G444	G445	G446	G447	G448	G449	G450	G451	G452	G453	G454	G455	G456	G457	G458	G459	G460	G461	G462	G463	G464	G465	G466	G467	G468	G469	G470	G471	G472	G473	G474	G475	G476	G477	G478	G479	G480	G481	G482	G483	G484	G485	G486	G487	G488	G489	G490	G491	G492	G493	G494	G495	G496	G497	G498	G499	G500	G501	G502	G503	G504	G505	G506	G507	G508	G509	G510	G511	G512	G513	G514	G515	G516	G517	G518	G519	G520	G521	G522	G523	G524	G525	G526	G527	G528	G529	G530	G531	G532	G533	G534	G535	G536	G537	G538	G539	G540	G541	G542	G543	G544	G545	G546	G547	G548	G549	G550	G551	G552	G553	G554	G555	G556	G557	G558	G559	G560	G561	G562	G563	G564	G565	G566	G567	G568	G569	G570	G571	G572	G573	G574	G575	G576	G577	G578	G579	G580	G581	G582	G583	G584	G585	G586	G587	G588	G589	G590	G591	G592	G593	G594	G595	G596	G597	G598	G599	G600	G601	G602	G603	G604	G605	G606	G607	G608	G609	G610	G611	G612	G613	G614	G615	G616	G617	G618	G619	G620	G621	G622	G623	G624	G625	G626	G627	G628	G629	G630	G631	G632	G633	G634	G635	G636	G637	G638	G639	G640	G641	G642	G643	G644	G645	G646	G647	G648	G649	G650	G651	G652	G653	G654	G655	G656	G657	G658	G659	G660	G661	G662	G663	G664	G665	G666	G667	G668	G669	G670	G671	G672	G673	G674	G675	G676	G677	G678	G679	G680	G681	G682	G683	G684	G685	G686	G687	G688	G689	G690	G691	G692	G693	G694	G695	G696	G697	G698	G699	G700	G701	G702	G703	G704	G705	G706	G707	G708	G709	G710	G711	G712	G713	G714	G715	G716	G717	G718	G719	G720	G721	G722	G723	G724	G725	G726	G727	G728	G729	G730	G731	G732	G733	G734	G735	G736	G737	G738	G739	G740	G741	G742	G743	G744	G745	G746	G747	G748	G749	G750	G751	G752	G753	G754	G755	G756	G757	G758	G759	G760	G761	G762	G763	G764	G765	G766	G767	G768	G769	G770	G771	G772	G773	G774	G775	G776	G777	G778	G779	G780	G781	G782	G783	G784	G785	G786	G787	G788	G789	G790	G791	G792	G793	G794	G795	G796	G797	G798	G799	G800	G801	G802	G803	G804	G805	G806	G807	G808	G809	G810	G811	G812	G813	G814	G815	G816	G817	G818	G819	G820	G821	G822	G823	G824	G825	G826	G827	G828	G829	G830	G831	G832	G833	G834	G835	G836	G837	G838	G839	G840	G841	G842	G843	G844	G845	G846	G847	G848	G849	G850	G851	G852	G853	G854	G855	G856	G857	G858	G859	G860	G861	G862	G863	G864	G865	G866	G867	G868	G869	G870	G871	G872	G873	G874	G875	G876	G877	G878	G879	G880	G881	G882	G883	G884	G885	G886	G887	G888	G889	G890	G891	G892	G893	G894	G895	G896	G897	G898	G899	G900	G901	G902	G903	G904	G905	G906	G907	G908	G909	G910	G911	G912	G913	G914	G915	G916	G917	G918	G919	G920	G921	G922	G923	G924	G925	G926	G927	G928	G929	G930	G931	G932	G933	G934	G935	G936	G937	G938	G939	G940	G941	G942	G943	G944	G945	G946	G947	G948	G949	G950	G951	G952	G953	G954	G955	G956	G957	G958	G959	G960	G961	G962	G963	G964	G965	G966	G967	G968	G969	G970	G971	G972	G973	G974	G975	G976	G977	G978	G979	G980	G981	G982	G983	G984	G985	G986	G987	G988	G989	G990	G991	G992	G993	G994	G995	G996	G997	G998	G999	G1000	G1001	G1002	G1003	G1004	G1005	G1006	G1007	G1008	G1009	G10010	G10011	G10012	G10013	G10014	G10015	G10016	G10017	G10018	G10019	G10020	G10021	G10022	G10023	G10024	G10025	G10026	G10027	G10028	G10029	G10030	G10031	G10032	G10033	G10034	G10035	G10036	G10037	G10038	G10039	G10040	G10041	G10042	G10043	G10044	G10045	G10046	G10047	G10048	G10049	G10050	G10051	G10052	G10053	G10054	G10055	G10056	G10057	G10058	G10059	G10060	G10061	G10062	G10063	G10064	G10065	G10066	G10067	G10068	G10069	G10070	G10071	G10072	G10073	G10074	G10075	G10076	G10077	G10078	G10079	G10080	G10081	G10082	G10083	G10084	G10085	G10086	G10087	G10088	G10089	G10090	G10091	G10092	G10093	G10094	G10095	G10096	G10097	G10098	G10099	G100100	G100101	G100102	G100103	G100104	G100105	G100106	G100107	G100108	G100109	G100110	G100111	G100112	G100113	G100114	G100115	G100116	G100117	G100118	G100119	G100120	G100121	G100122	G100123	G100124	G100125	G100126	G100127	G100128	G100129	G100130	G100131	G100132	G100133	G100134	G100135	G100136	G100137	G100138	G100139	G100140	G100141	G100142	G100143	G100144	G100145	G100146	G100147	G100148	G100149	G100150	G100151	G100152	G100153	G100154	G100155	G100156	G100157	G100158	G100159	G100160	G100161	G100162	G100163	G100164	G100165	G100166	G100167	G100168	G100169	G100170	G100171	G100172	G100173	G100174	G100175	G100176	G100177	G100178	G100179	G100180	G100181	G100182	G100183	G100184	G100185	G100186	G100187	G100188	G100189	G100190	G100191	G100192	G100193	G100194	G100195	G100196	G100197	G100198	G100199	G100200	G100201	G100202	G100203	G100204	G100205	G100206	G100207	G100208	G100209	G100210	G100211	G100212	G100213	G100214	G100215	G100216	G100217	G100218	G100219	G100220	G100221	G100222	G100223	G100224	G100225	G100226	G100227	G100228	G100229	G100230	G100231	G100232	G100233	G100234	G100235	G100236	G100237	G100238	G100239	G100240	G100241	G100242	G100243	G100244	G100245	G100246	G100247	G1002

DATE 28 OCT 74

AEDC WA-48211A-571 - CRAYET WORTH 200

OUTLINE ( 18 APR 74 )

## REFERENCE DATA

XREF = 2880.0000 SD. FT. XREF = 1082.0000 IN. Y1  
 YREF = 1290.3000 IN. YREF = .0000 IN. Y1  
 ZREF = 1290.3000 IN. ZREF = 447.0000 IN. Z1  
 SCALE = .0100

## PARAMETRIC DATA

RUN NO.	SY	0	RVAL	1.00	GRADIENT INTERVAL	-5.00	5.00
MACH	ALPHA	BETA	ON	0LN	CY	CIN	CL
4.500	-10.000	.00013	-.30413	.00039	-.00255	-.00031	.00046
4.500	-9.000	.00000	-.29145	.07740	-.00267	-.00034	.00034
4.500	-8.000	.00072	-.23794	.07534	-.00224	-.00047	.00047
4.500	-7.000	.00096	-.23353	.06951	-.00275	-.00060	.00063
4.500	-6.000	.00064	-.20762	.06286	-.00366	-.0014	.00024
4.500	-5.000	.00023	-.18248	.05750	-.00466	-.00060	.00031
4.500	-4.000	.00061	-.15782	.05159	-.00560	-.00060	.00036
4.500	-3.000	.00021	-.13325	.04603	-.00662	-.00069	.00047
4.500	-2.000	.00011	-.10613	.04024	-.00764	-.00075	.00051
4.500	-1.000	.00030	-.09346	.03471	-.00864	-.00082	.00053
4.500	.000	.00049	-.08014	.02996	-.00961	-.00090	.00054
4.500	1.000	.00032	-.03619	.02473	-.01056	-.00093	.00053
4.500	2.000	.000476	-.01194	.01894	-.01375	-.00132	.00052
4.500	3.000	.00066	.01262	.01279	-.01328	-.00173	.00056
4.500	4.000	.000311	.03783	.00836	-.01333	-.00173	.00057
4.500	5.000	.000314	.06154	.00932	-.01274	-.00127	.00060
4.500	6.000	.000547	.08620	-.00552	-.00293	-.00143	.00067
4.500	7.000	.000327	.11276	-.01311	-.00288	-.00144	.00074
4.500	8.000	.000471	.14026	-.02082	-.00331	-.00160	.00075
4.500	9.000	.000463	.16763	-.02812	-.00376	-.00202	.00076
4.500	10.000	.000443	.19377	-.03572	-.00436	-.00234	.00076
	GRADIENT		.00005	-.00361	.00022	-.00023	-.0004

Date Oct 14

MDC VII-122(1A-3M); Overall warranty

REFERENCE DATA

GEOMETRIC DATA

	MACH	BETA	ALPHA	CN	CLX	CLY	CLZ	CDL	CDR
4.500	-10.000	-1.4934	-.06815	.02286	.26865	-.06860	.03640	.26167	
4.500	-9.000	-1.3536	-.06874	.02176	.23363	-.07163	.03511	.18690	
4.500	-8.000	-1.2937	-.07074	.02033	.22026	-.06993	.02669	.15976	
4.500	-7.000	-1.2394	-.07196	.02074	.18021	-.05323	.02266	.19453	
4.500	-6.000	-1.1859	-.07391	.02066	.15564	-.04579	.01913	.19244	
4.500	-5.000	-1.1464	-.07642	.01340	.12353	-.03613	.01546	.19243	
4.500	-4.000	-1.1161	-.07878	.03223	.09391	-.02764	.01219	.18774	
4.500	-3.000	-1.0753	-.07972	.03306	.06931	-.01979	.00866	.18363	
4.500	-2.000	-1.0312	-.08059	.03396	.03892	-.01234	.00376	.18406	
4.500	-1.000	-0.96939	-.08087	.03444	.06963	-.00302	.00220	.18256	
4.500	.000	-0.9361	-.08031	.03562	.01862	.00338	-.00134	.18361	
4.500	1.000	-0.9304	-.08092	.03559	.04575	.01126	-.00472	.18116	
4.500	2.000	-0.9093	-.07912	.03622	.07203	-.01681	.00693	.18383	
4.500	3.000	-0.88646	-.07537	.03551	.09919	.02057	-.01156	.18676	
4.500	4.000	-0.85931	-.08004	.03528	.12370	.03274	-.01446	.18696	
4.500	5.000	-0.83955	-.08010	.03476	.15171	.03726	-.01719	.18734	
4.500	6.000	-0.81364	-.07858	.03356	.18196	.03735	-.02050	.18619	
4.500	7.000	-0.78372	-.07352	.03258	.21358	.03529	-.02617	.18640	
4.500	8.000	-0.75299	-.07693	.03115	.24758	.03376	-.02795	.18736	
4.500	9.000	-0.72276	-.07626	.03013	.28231	.03532	-.03184	.19223	
4.500	10.000	-0.69321	-.07354	.02979	.31682	.03736	-.03576	.19492	
GRADIENT		.00004	.00016	.00036	.00072	.00033	.00033	.00033	

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DATE 29 OCT 74

AFDC VA-42211A-171, CROVET WORTH 303

MACH 1 10 APR 74

## REFERENCE DATA

WRF = 2000.0000 SQ.FT. XRP = 1052.0000 IN. XT  
 URF = 1250.0000 IN. YR = .0000 IN. YT  
 GPF = 1250.0000 IN. ZRP = 447.0000 IN. ZT  
 SCALE = .0100

## PARAMETRIC DATA

L-SRA = 1.000 R-SRA = 1.000  
 SRA(S) = 1.100 S/L = 1.000  
 PT-JET = 750.0000 BETTA = .0000

RUN NO. 10/0 RFL = 1.00 GRADIENT INTERVAL = -5.DIV 5.00

MACH	ALPHA	BETA	CN	CM	CT	CTN	CL	CA
4.300	-10.000	.01011	-23200	-12708	.00760	-.00956	.00253	.00000
4.300	-9.000	.00920	-21351	-12752	.00632	-.00946	.00222	.00000
4.300	-8.000	.00758	-19478	-12630	.00523	-.00935	.00191	.00000
4.300	-7.000	.00696	-17611	-12510	.00466	-.00924	.00163	.00000
4.300	-6.000	.00633	-15759	-12393	.00401	-.00913	.00147	.00000
4.300	-5.000	.00572	-13925	-12250	.00341	-.00902	.00132	.00000
4.300	-4.000	.00512	-12127	-11930	.00272	-.00891	.00117	.00000
4.300	-3.000	.00452	-10270	-10085	.00202	-.00878	.00092	.00000
4.300	-2.000	.00394	-0010	-12637	.00140	-.00860	.00063	.00000
4.300	-1.000	.00335	-05036	-13111	.00087	-.00846	.00047	.00000
4.300	0.000	.00280	-04486	-13640	.00057	-.00832	.00033	.00000
4.300	1.000	.00234	-02764	-13969	.00036	-.00818	.00020	.00000
4.300	2.000	.00180	-01196	-13708	.00026	-.00803	.00016	.00000
4.300	3.000	.00131	.00571	-13660	.00015	-.00783	.00013	.00000
4.300	4.000	.00122	.01841	-13688	.00010	-.00763	.00010	.00000
4.300	5.000	.00119	.03157	-13854	.00006	-.00747	.00007	.00000
4.300	6.000	.00104	.05433	-14198	.00001	-.00730	.00000	.00000
4.300	7.000	.00154	.07814	-14104	-.00001	-.00715	.00000	.00000
4.300	8.000	.00144	.09882	-13927	-.00005	-.00695	.00000	.00000
4.300	9.000	.00223	.12263	-14114	-.00010	-.00675	.00000	.00000
4.300	10.000	.00861	.14822	-15000	-.00011	-.00657	.00000	-.00000
GRADIENT		-.00115	.01600	-.00111	-.00010	-.00637	.00000	-.00024

DATE 29 OCT 74

ADDC VA-222111-57, COSET W/BOTH SBS

PAGE 37

EDITION 1 15 APR 74

REFERENCE DATA

SHP = 200,000 SQ. FT.  
TRP = 1000,000 IN. X1  
LRF = 1000,000 IN.  
SREP = 1000,000 IN.  
SCALE = .0100

PARAMETRIC DATA

L-SP = 1,000  
R-SP = 1,000  
SPD = 750,000  
PT-JET = 750,000  
ALPH = 0.000  
BETA = 0.000  
RVL = 1.07  
GRADIENT INTERNAL = -9.00/ 3.00

RUN NO.	ALPHA	OM	CIN	CIV	CDL	CA
1	-37385	.06071	-112573	.11321	-.04955	.00000
2	-10,000	-36052	-.06071	.113217	.11320	.01161
3	-9,000	-36051	-.06071	.113217	.11320	.01161
4	-8,000	-36463	-.07046	-.12885	.12470	-.02036
5	-7,000	-38761	-.07193	-.13146	.10353	-.02159
6	-6,000	-38859	-.07231	-.13337	.09200	-.01944
7	-5,000	-38382	-.07743	-.13116	.07753	-.01567
8	-4,000	-37729	-.07973	-.12756	.06377	-.01350
9	-3,000	-37493	-.07793	-.12843	.04668	-.00937
10	-2,000	-37038	-.07568	-.12976	.02220	-.00613
11	-1,000	-36138	-.06285	-.13164	.01469	-.00350
12	0,000	-35213	-.05902	-.13024	.00419	-.00204
13	1,000	-35228	-.06120	-.12947	.02494	.01160
14	2,000	-35347	-.06541	-.12859	.03635	.01017
15	3,000	-34327	-.06335	-.12579	.05421	.01162
16	4,000	-33580	-.06459	-.12286	.07037	.01434
17	5,000	-32744	-.06504	-.12074	.09239	.01765
18	6,000	-31322	-.06160	-.11570	.11361	.02169
19	7,000	-29776	-.06435	-.10650	.13706	.02826
20	8,000	-29637	-.07273	-.10120	.16215	.03474
21	9,000	-29825	-.07022	-.10411	.18885	.04157
22	10,000	-29638	-.06586	-.10750	.21652	.04986
23	11,000	-29632	.00070	.00000	.01699	.00000
24	GRADIENT	.00032	.00117	.00000	.00000	.00000

DATE 29 OCT 74

AEDC VA-22211A-37. OBJECT WEIGHT 380

REFERENCE DATA

WGT = 2800.000 LB. FT.  
WGP = 10492.0000 IN. ST  
LRF = 1250.000 IN.  
GRF = 1250.000 IN.  
SCALE = .0100

ATTACHMENT (13 APR 74)

PARAMETRIC DATA

L-SR8 = 1.000 R-SR8 = 1.000  
SR8-OS = 1.000 R8L = 1.000  
PT-MT = 1000.000 SETA = .0000

RUN NO. A V D RFL = 1.00 GRADIENT INTERVAL = -3.0V 3.0V

MACH	ALPHA	BETA	CN	CL	CD	CM	CA
4.500	-10.000	-.000269	-.22298	-.000227	-.0002	.00172	-.00722
4.500	-9.000	-.000198	-.23376	-.23710	-.00139	.00153	-.00665
4.500	-8.000	.00169	-.17531	-.24679	-.00174	.00216	-.00465
4.500	-7.000	.00352	-.14356	-.23524	-.00288	.00092	-.00334
4.500	-6.000	.00353	-.11762	-.20461	-.00120	.00070	-.00222
4.500	-5.000	-.000222	-.09394	-.21175	-.00163	.00076	-.00173
4.500	-4.000	-.00424	-.07268	-.27583	-.01340	.00268	-.00263
4.500	-3.000	-.00315	.03593	-.27613	-.01156	.00353	-.00151
4.500	-2.000	.00165	.03862	-.27507	-.01269	.00351	-.00113
4.500	-1.000	.00202	-.03598	-.25101	-.00352	.00356	-.00056
4.500	.000	.00190	.02053	-.26531	-.02359	.00365	-.01256
4.500	1.000	.00167	.03861	-.26584	-.01762	.00358	-.00212
4.500	2.000	.00554	.03543	-.26689	-.01276	.00362	-.01465
4.500	3.000	.00209	.06803	-.26910	-.01172	.00367	-.00239
4.500	4.000	.00413	.08245	-.26532	-.01352	.00262	-.01266
4.500	5.000	.00139	.08044	-.27012	-.01495	.00363	-.00236
4.500	6.000	.01697	.11650	-.27364	-.01259	.00365	-.00210
4.500	7.000	.00504	.01504	-.27723	-.01067	.00367	-.00198
4.500	8.000	.00229	.15581	-.28065	-.00917	.00369	-.00187
4.500	9.000	.02013	.17341	-.28356	-.00737	.00371	-.00177
4.500	10.000	.02950	.19222	-.28479	-.00646	.00374	-.00167
	GRADIENT	.00000	.01998	.03307			

DATE 29 OCT 74

ADDC VI-02211-A-571 - GRADIENT WIDTH 3A

REFERENCE DATA

SREF = 2800.0000 SA. FT. 2689 = 1892.0000 IN. ST  
LREF = 1220.3000 IN. 1169 = 800.0000 IN. Y1  
BREF = 1220.3000 IN. 2689 = 447.0000 IN. Z1  
SCALE = .0100

(11000) (10000 100)

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PARAMETRIC DATA

L-REF = 1.000 R-REF = 1.000  
SREF = 1.000 RFLV = 1.000  
PT-JET = 1000.000 ALPHA = 0.000

RUN NO. 0/0 RFLV = 1.00 GRADIENT INTERVAL = -3.00/ 3.00

MACH	BETA	ALPHA	CN	CM	CT	CR	CD	CA
4.500	-10.000	-0.0103	-0.0116	-0.2225	-0.0002	-0.0002	-0.0002	-0.0002
4.500	-9.000	-0.0103	-0.0113	-0.2227	-0.0002	-0.0002	-0.0002	-0.0002
4.500	-8.000	-0.0103	-0.0106	-0.2234	-0.0002	-0.0002	-0.0002	-0.0002
4.500	-7.000	-0.0103	-0.0101	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	-6.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	-5.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	-4.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	-3.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	-2.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	-1.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	0.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	1.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	2.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	3.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	4.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	5.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	6.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	7.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	8.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	9.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002
4.500	10.000	-0.0103	-0.0103	-0.2153	-0.0002	-0.0002	-0.0002	-0.0002

GRADIENT

0.01336

0.02266

0.04164

0.06063

0.07962

0.09861

0.11760

0.13659

0.15558

0.17457

0.19356

0.21255

0.23154

0.25053

0.26952

0.28851

0.30750

0.32649

0.34548

0.36447

0.38346

0.40245

0.42144

0.44043

0.45942

0.47841

0.49740

0.51639

0.53538

0.55437

0.57336

0.59235

0.61134

0.63033

0.64932

0.66831

0.68730

0.70629

0.72528

0.74427

0.76326

0.78225

0.80124

0.82023

0.83922

0.85821

0.87720

0.89619

0.91518

0.93417

0.95316

0.97215

0.99114

0.10013

0.11912

0.13811

0.15710

0.17609

0.19508

0.21407

0.23306

0.25205

0.27104

0.29003

0.30902

0.32801

0.34700

0.36600

0.38500

0.40400

0.42300

0.44200

0.46100

0.48000

0.50000

0.52000

0.54000

0.56000

0.58000

0.60000

0.62000

0.64000

0.66000

0.68000

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0.72000

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1.90000

1.92000

1.94000

1.96000

1.98000

2.00000

2.02000

2.04000

2.06000

2.08000

2.10000

2.12000

2.14000

2.16000

2.18000

2.20000

2.22000

2.24000

2.26000

2.28000

2.30000

2.32000

2.34000

2.36000

2.38000

2.40000

2.42000

2.44000

2.46000

2.48000

2.50000

2.52000

2.54000

2.56000

2.58000

2.60000

2.62000

2.64000

2.66000

2.68000

2.70000

2.72000

2.74000

2.76000

2.78000

2.80000

2.82000

2.84000

2.86

DATE 29 OCT 74

AEDC VA-422114-377, OBJECT WEIGHT 500

PAGE - 0

ENCL C (18 APR 74)

## REFERENCE DATA

BREF = 2650.0000 SG.FT. XREF = 1052.0000 IN. XT  
 UREF = 1250.3000 IN. YREF = .0000 IN. YT  
 BREF = 1250.3000 IN. ZREF = 447.0000 IN. ZT  
 SCALE = .0100

## PARAMETRIC DATA

L-SUB = 1.000 P-SUB = 1.000  
 SPOS = 1.100 RSV = .000  
 PT-JET = .000 BETA = .000

RUN NO. 3/0 RVAL = 6.97 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	ON	CM	CV	CR	CL	CD
4.500	-10.000	-.03118	.305934	.08742	-.00002	.00085	.0004	.25000
4.500	-9.000	-.03124	.292215	.07918	.00214	-.00161	.00053	.25175
4.500	-8.000	-.02374	.29331	.07438	.01162	-.00161	.00053	.25250
4.500	-7.000	-.02285	.23417	.06976	-.00254	-.00072	.00071	.21950
4.500	-6.000	-.01512	.20756	.05397	-.00121	-.00233	.00153	.24253
4.500	-5.000	-.01076	.18150	.03795	-.00148	-.00138	.00132	.20738
4.500	-4.000	-.00714	.15702	.03230	-.00127	-.00043	.00032	.20136
4.500	-3.000	-.00129	.13322	.04721	-.00169	-.00042	.00039	.19955
4.500	-2.000	.00613	.10906	.04207	-.00216	-.00034	.00033	.19771
4.500	-1.000	.01256	.08454	.03518	-.00316	-.00032	.00032	.18454
4.500	.000	.01703	.06043	.03032	-.00274	-.00030	.00032	.17521
4.500	1.000	.01979	.03613	.02431	-.00200	-.00070	.00028	.17528
4.500	2.000	.02392	.01146	.01612	-.00161	-.00069	.00013	.17428
4.500	3.000	.03314	.01332	.01164	-.00210	-.00038	.00031	.16382
4.500	4.000	.04103	.03768	.03535	-.00265	-.00133	.00131	.16379
4.500	5.000	.04684	.06242	.03387	-.00256	-.00129	.00120	.16220
4.500	6.000	.05003	.09755	.03726	-.00251	-.00124	.00122	.15975
4.500	7.000	.05354	.11397	.04148	-.00251	-.00126	.00121	.15228
4.500	8.000	.06140	.13984	.05219	-.00252	-.00127	.00125	.14285
4.500	9.000	.06576	.16853	.06214	-.00300	-.00114	.00114	.13616
4.500	10.000	.06995	.19232	.07443	-.00330	-.00111	.00111	.13228
	GRADIENT	.021564	.02438	.00350	-.00106	-.00071	-.00069	-.00069

DATE 22 OCT 74

## AFEDC VA-42211A-57. CROFT W/OTH 988

STUDY ( 16 APR 74 )

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## REFERENCE DATA

BREF = 2000.0000 2d.FT.  
 LREF = 1800.3000 IN.  
 ZREF = 1200.3000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

XRP = 1032.0000 IN. XT  
 YRP = .0000 IN. YT  
 ZRP = 447.0000 IN. ZT

L-SUB = 1.000  
 SRPOS = 1.000  
 PT-JET = .0000  
 ALPHA = .000

RUN NO. 4/0 RVAL = 0.93 GRADIENT INTERVAL = -9.00 9.00

MACH	BETA	ALPHA	CN	CM	CR	CT	CH	CA
4.500	-10.000	-.46367	-.07461	.02361	.26356	-.18468	.03366	.19733
4.500	-9.000	-.44395	-.07450	.02477	.25234	-.07323	.03021	.19227
4.500	-8.000	-.43342	-.07453	.02595	.21932	-.06246	.02594	.19165
4.500	-7.000	-.41545	-.07443	.02697	.18739	-.05204	.02199	.18894
4.500	-6.000	-.40368	-.07436	.02829	.15850	-.04392	.01890	.18743
4.500	-5.000	-.39227	-.07432	.02937	.12950	-.03668	.01563	.18532
4.500	-4.000	-.38487	-.07438	.03082	.09797	-.03078	.01226	.18466
4.500	-3.000	-.37633	-.07422	.03224	.06929	-.02322	.00932	.18265
4.500	-2.000	-.36758	-.08109	.03435	.04166	-.01253	.00567	.18138
4.500	-1.000	-.35950	-.08208	.03594	.01466	-.00355	.00246	.17956
4.500	.000	-.35819	-.08237	.03619	.01336	-.00268	.00161	.18144
4.500	1.000	-.35963	-.08255	.03577	.04042	.00926	.00416	.18130
4.500	2.000	-.36358	-.08076	.03460	.06263	.01667	.00746	.18213
4.500	3.000	-.36724	-.08094	.03417	.09359	.02392	.01102	.18417
4.500	4.000	-.37487	-.08035	.03520	.12614	.03131	.01446	.18617
4.500	5.000	-.39139	-.08054	.03231	.14968	.03902	.01706	.18936
4.500	6.000	-.38451	-.08032	.03198	.17730	.04621	.02046	.19722
4.500	7.000	-.36880	-.08039	.03131	.20437	.05371	.02423	.19630
4.500	8.000	-.36296	-.08039	.03060	.23230	.06619	.02828	.18894
4.500	9.000	-.40333	-.08036	.03016	.26175	.07899	.03213	.19333
4.500	10.000	-.40566	-.08032	.02337	.29239	.08838	.03599	.19166
	GRADIENT		.00116	.00046	.02765	.00330	.00000	

DATE 29 OCT 74

AEDC VK-422(11-57). OFFSET W/OTH STR

REFERENCE DATA

SREF = 2800.000 SQ.FT. XREF = 1032.0000 IN. XT  
LREF = 1250.3000 IN. YREF = .0000 IN. YT  
BREF = 1250.3000 IN. ZREF = 447.0000 IN. ZT  
SCALE = .0100

RUN NO. 354 0 RVL = 1.07 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	CN	CLN	CR	CN	CL	CA
4.490	-10.000	-.00039	.00000	-.00073	-.01635	.00041	-.00011	.00031
4.490	-9.000	.00035	.00000	-.00267	-.02362	.00475	-.00033	.00030
4.490	-8.000	.00057	.00000	-.01316	-.02631	.00325	-.00040	.00120
4.490	-7.000	.01008	.00000	-.01539	-.02472	.0164	-.00077	.00031
4.490	-6.000	.01613	.00000	-.01671	-.02821	.00341	-.00050	.00037
4.490	-5.000	.01943	.00000	-.02191	-.03670	.00194	-.00055	.00036
4.490	-4.000	.02210	.00000	.00017	-.02269	.04175	-.00042	.00164
4.490	-3.000	.02378	.00000	.00345	-.02276	.04390	-.00057	.00037
4.490	-2.000	.02232	.00000	.01120	-.02317	.04159	-.00045	.00034
4.490	-1.000	.02025	.00000	.02765	-.02292	.03736	-.00042	.00037
4.490	.0003	.02392	.00000	.04358	-.02375	.03590	-.00036	.00035
4.490	1.000	.02019	.00000	.02121	-.03456	.0370	-.00033	.00035
4.490	2.000	.01863	.00000	.02830	-.02858	.02643	-.00029	.00176
4.490	3.000	.01904	.00000	.020469	-.03370	.02780	-.00026	.00294
4.490	4.000	.01813	.00000	.022533	-.03799	.02196	-.00022	.00217
4.490	5.000	.01653	.00000	.02398	-.04019	.02145	-.00016	.00256
4.490	6.000	.02151	.00000	.04969	-.04151	.02179	-.00018	.00121
4.490	7.000	.02333	.00000	.06561	-.04652	.02936	-.00017	.00236
4.490	8.000	.02763	.00000	.02140	-.05104	.02716	-.00014	.00064
4.490	9.000	.02631	.00000	.02591	-.05477	.02794	-.00013	.00057
4.490	10.000	.02912	.00000	.03888	-.05603	.02556	-.00013	.00053
	GRADIENT	-.00038		.01777	-.00019	.0126	-.00020	.00019

PARAMETRIC DATA

L-350 = 2.000 R-350 = 2.000  
SREF = 2.000 RVL = 1.000  
PT-JET = 1500.0000 BETA = .000

ATTACHED 1 18 APR 74 1

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DATE 29 OCT 74

AEDC VA-222(1A-37), CRVET WORTH 200

REFERENCE DATA

REFP = 2000.0000 20.FT. DREFP = 1052.0000 IN. XT  
UNP = 1250.0000 IN. YTP = .0000 IN. YT  
ZEP = 1250.0000 IN. ZEP = 447.0000 IN. ZT  
SCALE = .0100

OUTLOAD (110 AMP 20)

PARAMETRIC DATA

MACH	ALPHA	BETA	CH	CL	CT	CN	CL	CA
4.500	-10.000	.02427	-.04128	-.03603	-.03083	-.03136	-.03172	.03064
4.500	-9.000	.03070	-.02087	-.03669	-.03154	-.03060	-.03167	.03071
4.500	-8.000	.03773	-.00167	.03149	-.03326	-.03264	-.03186	.03051
4.500	-7.000	.04253	.04268	-.03649	-.03649	-.03827	-.03221	.03467
4.500	-6.000	.03962	.03113	.02681	-.03834	-.03882	-.03260	.03315
4.500	-5.000	.03784	.04723	.02846	-.03710	-.03972	-.03244	.03647
4.500	-4.000	.03617	.06160	.06114	-.03667	-.03003	-.03343	.03153
4.500	-3.000	.04328	.07432	.04887	-.03222	-.03733	-.03432	.03459
4.500	-2.000	.03456	.08497	.04707	-.02750	-.03462	-.03522	.03221
4.500	-1.000	.02721	.09512	.04532	-.02968	-.03262	-.03314	.03226
4.500	.000	.02453	.10396	.04337	-.02160	-.03176	-.03464	.03563
4.500	1.000	.02222	.11924	.04457	-.01821	-.03164	-.03447	.03146
4.500	2.000	.02122	.13636	.04778	-.01599	-.03247	-.03331	.03847
4.500	3.000	.01634	.14986	.04763	-.01010	-.03201	-.03300	.03554
4.500	4.000	.01475	.15989	.04437	-.01832	-.03157	-.03369	.03333
4.500	5.000	.02036	.16395	.04082	-.01379	-.03150	-.03372	.03087
4.500	6.000	.02701	.17567	.04076	-.02318	-.03098	-.03234	.03797
4.500	7.000	.02864	.20379	.04647	-.03059	-.03133	-.03611	.03467
4.500	8.000	.02836	.25369	.05286	-.02952	-.03137	-.03687	.03117
4.500	9.000	.02812	.23325	.05691	-.02814	-.03350	-.03572	.03203
4.500	10.000	.02805	.27249	.05899	-.01807	-.02247	-.02253	.03055
	GRADIENT	-.00362	.01213	.00054	.00296	.00060	-.00003	-.00200

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

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DATE 28 OCT 74

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ADDC VA-422(1A-57), CRUET W/BOTH 3R8

ATLANTA (18 APR 74)

## REFERENCE DATA

SHFT = 2650.0000 50. FT. XREF = 10322.0000 IN. XT  
 UDF = 1250.3000 IN. YREF = .0000 IN. YT  
 SRF = 1250.3000 IN. ZREF = 447.0000 IN. ZT  
 SCALE = .0100

RUN NO. 33V 0 RFL = 1.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	ON	C1	CN	CL	CA
4.500	-10.000	-.005911	.12370	-.04096	.25164	-.05386	.02638
4.500	-9.000	-.003226	.13267	-.04261	.26940	-.05253	.02602
4.500	-8.000	.00269	.14187	-.04455	.26932	-.05460	.02635
4.500	-7.000	.01083	.14985	-.04683	.26916	-.05508	.02691
4.500	-6.000	.01682	.15684	-.04931	.22642	-.05012	.02645
4.500	-5.000	.00764	.14956	-.04756	.16939	-.03867	.02312
4.500	-4.000	-.00415	.13216	-.04879	.13911	-.02705	.02692
4.500	-3.000	-.01732	.12110	-.05172	.09893	-.01573	.01468
4.500	-2.000	-.02192	.10324	-.04653	.04139	-.00771	.00655
4.500	-1.000	-.02821	.08977	-.04231	.03286	-.00214	.00151
4.500	.000	-.01521	.10135	-.04668	.03968	.00198	.00848
4.500	1.000	-.00435	.10752	-.04222	.03944	.00646	.01473
4.500	2.000	.01156	.11600	-.03854	.14735	.01809	.02021
4.500	3.000	.02772	.12450	-.03421	.19424	.02815	.02441
4.500	4.000	.03735	.12973	-.03228	.23028	.03794	.02797
4.500	5.000	.03792	.13314	-.03516	.24753	.04108	.02898
4.500	6.000	.03386	.13062	-.03707	.26053	.03947	.02805
4.500	7.000	.03295	.12323	-.03652	.27596	.03676	.02737
4.500	8.000	.022328	.11586	-.03759	.25257	.03527	.02671
4.500	9.000	.01770	.10983	-.03729	.30506	.03465	.02635
4.500	10.000	.01246	.09630	-.03693	.32725	.03675	.02654
	GRADIENT	.00485	-.00024	.00180	-.04238	.00775	-.00360

## PARAMETRIC DATA

L-SUBS = 2.000 R-SUBS = 2.000  
 S-SUBS = 2.200 RFL = 1.400  
 PT-JET = 1500.000 ALPHA = .000

DATE 28 OCT 74

AEDC VA-4221A-57. CRVET W/ BOTH SWS

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071045 (110 APR 74)

REFERENCE DATA

SREF = 1050.0000 50.FT. XREF = 1052.0000 IN. XT  
YREF = 1050.3000 IN. YREF = .0000 IN. YT  
ZREF = 1050.3000 IN. ZREF = 447.0000 IN. ZT  
SCALE = .0100

RUN NO. 31/0 RFL = 1.00

GRADIENT INTERVAL = -9.00/ 5.00

MACH	ALPHA	BETA	CH	CLW	CR	CLN	CM	CD	CA
4.500	-10.000	-.00124	.00116	.00119	-.00051	.00116	.00060	.00060	.21673
4.500	-9.000	-.00135	.02972	.07779	-.00047	.00066	.00067	.00067	.21727
4.500	-8.000	.00022	.03704	.07533	-.00042	.00066	.00045	.00045	.21813
4.500	-7.000	.00031	-.21204	.06894	-.00036	.00066	.00031	.00031	.20669
4.500	-6.000	.00037	-.19622	.06014	-.00026	.00066	.00021	.00021	.20153
4.500	-5.000	.00036	-.18019	.05226	-.00013	.00066	.00013	.00012	.19743
4.500	-4.000	.00035	-.13466	.04595	-.00007	.00066	.00016	.00016	.19163
4.500	-3.000	.00034	-.11061	.03966	-.00017	.00066	.00013	.00013	.18776
4.500	-2.000	.00039	-.00676	.03310	-.00011	.00066	.00009	.00009	.18469
4.500	-1.000	.00037	-.00269	.02671	-.00006	.00066	.00009	.00009	.18079
4.500	0.000	.00031	-.00012	.02374	-.00011	.00066	.00012	.00012	.17613
4.500	1.000	.00049	-.01449	.01192	-.00007	.00066	.00005	.00005	.17523
4.500	2.000	.00046	.01391	.00994	-.00004	.00066	.00004	.00004	.17516
4.500	3.000	.00037	.00194	-.00996	-.00032	.00066	-.00026	.00026	.17103
4.500	4.000	.00036	.00022	-.00277	-.00411	.00066	-.00043	.00043	.16931
4.500	5.000	.00031	.00017	-.02988	-.00464	.00066	-.00055	.00055	.16774
4.500	6.000	.00029	.00049	.01236	-.00591	.00066	-.00053	.00053	.16523
4.500	7.000	.00026	.00056	.01424	-.00615	.00066	-.00058	.00058	.16239
4.500	8.000	.00022	.01272	.16626	-.00610	.00066	-.00069	.00069	.15859
4.500	9.000	.00121	.01321	.18975	-.00543	.00066	-.00071	.00071	.15601
4.500	10.000	.01344	.21172	.06220	-.00637	.00066	-.00072	.00072	.15355
GRADIENT	.00045	.02354	-.00227	-.00036	.00022	-.00007	-.00007	-.00007	.00267

ORIGINAL PRINT IS POOR

DATE 29 OCT 74

AEDC VA-02211A-571 - C90/ET WARTHOG

## REFERENCE DATA

WT = 2000,000 LB. ST.  
 LWT = 1800,000 LB IN.  
 SWP = 1800,000 LB IN.  
 SWP = 1800,000 LB IN.  
 SCALE = .0100

RUN NO. 32/ 0 RFLV = 1.04

GRADIENT INTERVAL = -9.00/ 9.00

MACH	BETA	ALPHA	CN	CLW	CV	CN	CL	CA
4.500	-10.000	-1.13453	-0.03898	.00669	.29693	-.05477	.03611	.20103
4.500	-9.000	-1.12776	-0.03117	.00574	.26222	-.08504	.02693	.19745
4.500	-8.000	-1.12024	-0.03597	.01288	.23037	-.07250	.02626	.19367
4.500	-7.000	-1.11422	-0.04179	.01694	.19763	-.06257	.02263	.19130
4.500	-6.000	-1.10862	-0.03151	.01965	.16722	-.05345	.01930	.18726
4.500	-5.000	-1.10421	-0.03498	.02163	.13982	-.04418	.01597	.18289
4.500	-4.000	-1.10102	-0.03726	.02359	.10438	-.03487	.01217	.18032
4.500	-3.000	-1.09568	-0.03804	.02503	.07436	-.02486	.00950	.17932
4.500	-2.000	-1.09180	-0.03100	.02720	.04953	-.01525	.00861	.17784
4.500	-1.000	-1.08941	-0.03014	.02676	.01332	-.00396	.00227	.17639
4.500	.000	-1.08772	-0.03693	.02610	-.01038	.03390	-.00112	.17487
4.500	1.000	-1.08558	-0.03915	.02659	-.04640	.01253	-.00438	.17360
4.500	2.000	-1.08416	-0.03911	.02654	-.07039	.02156	-.00787	.17172
4.500	3.000	-1.08355	-0.03749	.02603	-.11060	.03136	-.01133	.16167
4.500	4.000	-1.08359	-0.03673	.02557	-.13634	.03877	-.01492	.16461
4.500	5.000	-1.08531	-0.03523	.02532	-.16531	.04695	-.02138	.16777
4.500	6.000	-1.08648	-0.03177	.01986	-.19513	.05495	-.02076	.16777
4.500	7.000	-1.09030	-0.03027	.01793	-.22743	.06486	-.02434	.16861
4.500	8.000	-1.09188	-0.03117	.01517	-.26103	.07353	-.02605	.16218
4.500	9.000	-1.09344	-0.03022	.01315	-.29897	.08647	-.03191	.16450
4.500	10.000	-1.09571	-0.03087	.01014	-.33036	.09613	-.03355	.16136

GRADIENT

## PARAMETRIC DATA

L-380 = 2.000 R-380 = 2.000  
 SRGCS = 2.200 RFLV = 1.760  
 PT-JET = .0000 ALPHA = .0000

ORLOAD (110 APR 74)

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DATE 29 OCT 74

ADDC VA-422(1A-37), CRASH TEST W/80% GFA

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ATLANTIC ( 18 APR 74, )

## REFERENCE DATA

GNDP = 2800,0000 SD. FT.	XGDP = 1032,0000 IN. XT
UGDP = 1280,3000 IN.	YGDP = .0000 IN. YT
BGDP = 1280,3000 IN.	ZGDP = 447,0000 IN. ZT
SCALE = .0100	

## PARAMETRIC DATA

RUN NO.	3D/ 0	RVAL = 1.84	GRADIENT INTERVAL = -3.00V 5.00					
			CLX	CLY	CLZ	CIN	CIN	CIN
MACH	ALPHA	BETA	01	01.556	.001773	.00213	.17356	
4.500	-10,000	-.00449	-1.9528	.03763	-.01170	.00503	.00167	
4.500	-9,000	-.00190	-1.12636	.02653	-.02165	.00574	.00167	
4.500	-8,000	-.00084	-1.10694	.02165	-.00694	.00369	.00166	
4.500	-7,000	-.00222	-.08941	.01437	-.02668	.00167	.00175	
4.500	-6,000	.00243	-.06420	.00653	-.02740	.00167	.00168	
4.500	-5,000	.01044	-.03989	.00312	-.01317	.00131	.00123	
4.500	-4,000	.01061	-.01705	.01113	-.01168	.00361	.00107	
4.500	-3,000	.01087	.00351	.01901	-.01034	.00216	.00160	
4.500	-2,000	.01125	.02774	.02670	-.00922	-.00043	.00171	
4.500	-1,000	.00983	.05167	.03450	-.01742	-.00013	.00098	
4.500	0,000	.00873	.07923	.04156	-.00850	-.00017	.00078	
4.500	1,000	.00900	.09749	.04705	-.00585	-.00061	.00116	
4.500	2,000	.01124	.11542	.05942	-.00569	-.00146	.00233	
4.500	3,000	.01274	.12986	.08216	-.00434	-.00254	.00164	
4.500	4,000	.01393	.13934	.09158	-.00210	-.00093	.00132	
4.500	5,000	.01478	.14870	.05062	-.00179	-.00053	.00120	
4.500	6,000	.01454	.16072	.05073	-.00224	-.00096	.00082	
4.500	7,000	.01420	.17593	.05210	-.00255	-.00171	.00066	
4.500	8,000	.01486	.19446	.05305	-.00269	-.00196	.00053	
4.500	9,000	.01672	.21534	.05306	-.00269	-.00112	.00039	
4.500	10,000	.02297	.23317	.06184	-.00340	-.01036	.00153	
			.01966	-.00036		-.00037	-.00034	
			GRADIENT					

DATE 29 OCT 74

AEDC VA-422(1A-57), CRAYET WORTH 800

## REFERENCE DATA

SREF	=	2000.0000 90.FT.
UREF	=	1250.3000 IN.
BREF	=	1250.3000 IN.
SCALE	=	.0100

XREFP	=	1052.0000 IN. XT
YREFP	=	.0000 IN. Y1
ZREFP	=	447.0000 IN. Z1

ATLAS (1 10 APR 74)

## PARAMETRIC DATA

RUN NO.	29/ 0	RVAL = 1.04	GRADIENT INTERVAL = -3.00V 5.00						
MACH	BETA	ALPHA	C1	C4	C7	C10	C13	C16	C19
4.500	-10.000	-.13162	-.11046	-.22109	.22469	-.05434	.02079	.12020	
4.500	-9.000	-.13242	.00353	-.32330	.17997	-.03761	.01344	.16395	
4.500	-8.000	-.13330	.01247	-.02983	.14712	-.02259	.01297	.13603	
4.500	-7.000	-.13420	-.02703	.03178	.12194	-.02301	.01057	.13276	
4.500	-6.000	-.13508	-.02113	.02319	.03326	.03689	-.01942	.03694	.13550
4.500	-5.000	-.13595	-.01525	.04112	.03754	.07625	.01676	.03793	.12946
4.500	-4.000	-.13683	-.00938	.05039	-.04036	.05676	-.01530	.03729	.12336
4.500	-3.000	-.09107	.05691	-.04079	.03601	-.01134	.00392	.12916	
4.500	-2.000	-.08392	.05905	-.03897	.01861	-.00595	.00326	.12910	
4.500	-1.000	-.07918	.05631	-.03673	.00053	-.00051	.00139	.13020	
4.500	.000	-.07755	.06968	-.03350	-.01319	.00291	-.00237	.13036	
4.500	1.000	-.07625	.05936	-.02914	-.03171	.00424	-.00403	.13327	
4.500	2.000	-.06036	.02737	-.02452	-.04450	.03494	-.00469	.13575	
4.500	3.000	-.06107	.00421	-.01922	-.05398	.03721	-.00510	.13695	
4.500	4.000	-.06312	.00224	-.01513	-.07091	.01050	-.00320	.13760	
4.500	5.000	-.06573	-.00843	-.01193	-.01185	.01584	-.00459	.13859	
4.500	6.000	-.06774	-.00245	-.00793	-.12078	.02407	-.00816	.13890	
4.500	7.000	-.06835	-.00266	-.00718	-.11720	.03689	-.01357	.13530	
4.500	8.000	-.06339	-.00274	-.00750	-.22981	.04787	-.01912	.13155	
4.500	9.000	-.06464	-.00269	-.00836	-.27246	.05569	-.02276	.13035	
4.500	10.000	-.06497	-.00253	-.00818	-.30883	.06168	-.02563	.13140	
GRADIENT		.00180	-.00686	.00200	-.01628	.03316	-.00159	.03107	

DATE 22 OCT 74

AEDC VA-42211A-370, CRUET WASHIN 950

REFERENCE DATA

BREF = 2000.0000 88. FT.  
URF = 1250.3700 IN.  
BREP = 1250.3300 IN.  
SCALZ = .0100  
XRP = 1032.0000 IN. M  
YRP = .0000 IN. Y  
ZRP = 447.0000 IN. ZT

PARAMETRIC DATA

MACH	ALPHA	BETA	DN	CW	CR	CM	CL	CA
4.500	-10.000	.02714	-.07576	-.02059	-.05065	.00097	-.00000	.00000
4.500	-9.000	.03053	-.07526	-.02059	-.05067	.00096	-.00000	.00000
4.500	-8.000	.04750	-.07516	-.02055	-.04953	.00077	-.00000	.00000
4.500	-7.000	.04750	-.07506	-.02055	-.04953	.00077	-.00000	.00000
4.500	-6.000	.04591	.02019	-.02558	-.03759	.00176	.00000	.00000
4.500	-5.000	.03990	.02569	-.04022	-.02806	-.00096	.00000	.00000
4.500	-4.000	.03221	.04589	-.05043	-.01914	-.00061	-.00000	.00000
4.500	-3.000	.02782	.06136	-.05045	-.01415	-.00068	-.00000	.00000
4.500	-2.000	.02035	.07773	-.05210	-.01225	-.00138	-.00000	.00000
4.500	-1.000	.01416	.08611	-.05985	-.00770	-.00200	-.00000	.00000
4.500	0.000	.00000	.00096	.05320	-.00467	-.00000	-.00000	.00000
4.500	1.000	.01176	.12606	-.05520	-.00553	-.00000	-.00000	.00000
4.500	2.000	.02215	.13950	-.05519	-.01153	-.00000	-.00000	.00000
4.500	3.000	.02571	.15632	-.04455	-.01317	-.00000	-.00000	.00000
4.500	4.000	.02251	.17620	-.06821	-.00869	-.00000	-.00000	.00000
4.500	5.000	.02206	.19767	-.06442	-.00074	-.00000	-.00000	.00000
4.500	6.000	.02382	.22231	-.07287	-.00057	-.00000	-.00000	.00000
4.500	7.000	.02328	.24166	-.07839	-.00717	-.00000	-.00000	.00000
4.500	8.000	.02698	.25456	-.07881	-.00566	-.00000	-.00000	.00000
4.500	9.000	.02766	.26206	-.07477	-.00073	-.00000	-.00000	.00000
4.500	10.000	.02694	.27010	-.07473	-.00013	-.00000	-.00000	.00000

ORIGINAL PAGE IS POOR

DATE 29 OCT 74

## AEDC VA-422(1A-37). CR/ET WARTHOG

## REFERENCE DATA

SREF = 2650.0000 SA, PT.  
 UREF = 1250.0000 IN.  
 SREF = 1250.3003 IN.  
 SCALE = .0100

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( 18 APR 74. )

## PARAMETRIC DATA

L-SRB = 2,000 R-SRB = 2,000  
 SRBROS = 2,200 FAVL = 1,700  
 FT-JET = 1500.000 ALPHA = .000

MACH	BETA	ALPHA	CN	CLW	CY	CN	CL	CQ	GRADIENT INTERVAL = -5.00/ 5.00	
									RFL	GRADIENT
4.500	-10.000	-.03259	.59841	-.03349	.26971	-.03211	.02211	.00554		
4.500	-9.000	-.02856	.09693	-.03723	.21713	-.04701	.00535	.00356		
4.500	-8.000	-.02926	.08677	-.03696	.22953	-.04461	.00585	.00369		
4.500	-7.000	-.02622	.09888	-.03846	.20307	-.04196	.00661	.00406		
4.500	-6.000	-.02273	.10023	-.03768	.19406	-.03793	.01675	.00521		
4.500	-5.000	-.02235	.10458	-.03982	.19922	-.03086	.01430	.00527		
4.500	-4.000	-.02313	.11061	-.04427	.12710	-.02297	.01105	.00248		
4.500	-3.000	-.03398	.11195	-.05227	.05052	-.01650	.00623	.00403		
4.500	-2.000	-.03268	.11055	-.05925	.04977	-.02265	.01416	.00576		
4.500	-1.000	-.03167	.10926	-.05937	.05040	-.02058	.01157	.00451		
4.500	.000	-.04042	.09146	-.04618	.04198	-.00730	-.00353	.00360		
4.500	1.000	-.02421	.08262	-.03362	.09224	.01003	-.00764	.00945		
4.500	2.000	-.01962	.07930	-.03090	.13269	.01547	-.01072	.00944		
4.500	3.000	-.01932	.08106	-.03220	.15969	.02220	-.01432	.00954		
4.500	4.000	-.02145	.08146	-.03546	.19210	.02943	-.01747	.00932		
4.500	5.000	-.02273	.08165	-.03726	.20797	.03550	-.01959	.00916		
4.500	6.000	-.01923	.08326	-.03735	.23251	.03932	-.02022	.00767		
4.500	7.000	-.01623	.08359	-.03726	.23650	.03926	-.01999	.007417		
4.500	8.000	-.01449	.08361	-.03684	.27899	.03650	-.01986	.007319		
4.500	9.000	-.01324	.08176	-.03568	.30139	.03834	-.02054	.008020		
4.500	10.000	-.01311	.07262	-.03155	.32692	.04131	-.02296	.008103		
	GRADIENT	.00143	-.00371	.01666	-.03892	.03614	-.01351	.008033		

DATE 29 OCT 74

AEDC V4-4221A-37, CRANE WORTH 200

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071051 130 APR 74

REFERENCE DATA

REFP = 1000.0000 IN. FT.  
YTRP = 1000.0000 IN.  
ZTRP = 447.0000 IN. ZT  
SCALZ = .0100

PARAMETRIC DATA

RUN NO.	REF 0	REFL =	2.23	GRADIENT INTERVAL =	-3.00V 3.00V	
					CA	CB
MACH	ALPHA	BETA	ON	GLH	-0.005	0.005
4.500	-10.000	.03530	-.03531	-.03548	.03549	.03547
4.500	-9.000	.03532	-.03526	-.03546	.03559	.03549
4.500	-8.000	.03531	-.03535	-.03540	.03557	.03550
4.500	-7.000	.03514	-.03510	-.02776	.02592	.02620
4.500	-6.000	.03522	-.03500	-.03223	.03230	.03277
4.500	-5.000	.03545	.031792	-.03526	.03539	.03537
4.500	-4.000	.03535	.034162	-.03598	.03538	.03537
4.500	-3.000	.03519	.030713	-.03523	.03546	.03553
4.500	-2.000	.03461	.07916	-.03765	.03765	.03737
4.500	-1.000	.03449	.10315	-.04766	.04113	.02276
4.500	.000	.03425	.12177	-.03192	.02228	.02227
4.500	1.000	.03417	.13936	-.03636	.03124	.03477
4.500	2.000	.03476	.15010	-.05445	.03148	.03847
4.500	3.000	.03576	.15895	-.02569	.02288	.03319
4.500	4.000	.03635	.16570	-.03125	.02557	.03172
4.500	5.000	.03646	.17791	-.03264	.03156	.03147
4.500	6.000	.03224	.19261	-.05635	.03136	.03108
4.500	7.000	.02464	.21064	-.05198	.03074	.02738
4.500	8.000	.02439	.22975	-.05861	.02551	.02074
4.500	9.000	.02570	.24360	-.07153	.03053	.02615
4.500	10.000	.02693	.25742	-.07053	.02213	.02024
	GRADIENT		-.00072	.01615	.00163	-.00004

DATE 28 OCT 74

AFDC VAC-422(1A-57), CDR 21 WORTH 800

(710202 110 APR 74)

## REFERENCE DATA

REF = 2850.0000 SQ.FT. YRP = 1092.0000 IN. XT  
 LRF = 1290.3000 IN. ZRF = 447.0000 IN. YT  
 SRF = 1290.3000 IN. SCALE = .0100

## PARAMETRIC DATA

RUN NO. 2W 0 RFL = 2.33 GRADIENT INTERVAL = -3.00 3.00

MACH	BETA	ALPHA	ON	CLW	CT	CIN	CL	CA
4.500	-10.000	-.06936	.04310	-.02115	.22241	-.03523	.01974	.10227
4.500	-9.000	-.07528	.00038	-.02247	.22953	-.04732	.01176	.10071
4.500	-8.000	-.07359	.03576	-.02115	.19630	-.04596	.01495	.10383
4.500	-7.000	-.07030	.03976	-.02176	.16168	-.03522	.01159	.10169
4.500	-6.000	-.07159	.04786	-.02612	.11254	-.02223	.00711	.10250
4.500	-5.000	-.07102	.06064	-.02565	.07405	-.01492	.00653	.10243
4.500	-4.000	-.06933	.07581	-.02663	.04511	-.00868	.00246	.10246
4.500	-3.000	-.05745	.08932	-.04369	.02264	-.00251	.00141	.09872
4.500	-2.000	-.04844	.10415	-.04869	.01467	-.00224	-.00053	.09639
4.500	-1.000	-.04559	.111015	-.05114	-.00312	-.00217	-.00071	.09693
4.500	.000	-.04743	.09157	-.04922	-.00315	-.00253	-.00078	.09623
4.500	1.000	-.05027	.07520	-.03668	-.00274	-.00135	-.00037	.09582
4.500	2.000	-.05690	.05835	-.00695	-.00132	-.00035	-.00025	.09516
4.500	3.000	-.06092	.04114	-.02547	-.00032	-.00029	-.00017	.09469
4.500	4.000	-.06633	.016910	-.016910	-.00221	-.00053	-.00022	.09422
4.500	5.000	-.06335	.01695	-.01695	-.00221	-.00053	-.00022	.09454
4.500	6.000	-.05976	.01688	-.01376	-.00456	-.00111	-.00042	.09472
4.500	7.000	-.05677	.02103	-.01679	-.00367	-.00177	-.00053	.09493
4.500	8.000	-.05344	.03522	-.02120	-.00226	-.00056	-.00037	.09463
4.500	9.000	-.04943	.03936	-.02216	-.00227	-.00056	-.00034	.09451
4.500	10.000	-.04353	.03044	-.02191	-.00200	-.00053	-.00031	.09431
	GRADIENT		-.00023	-.00028	-.00022	-.00020	-.00018	-.00016

DATE OCT 74

THE VERSOES OF THE HOLLANDERS IN ENGLISH

ACADEMIC DATA

RUN NO. 250 0 RAVL = 1.00 GRADIENT INTERVAL = 0.500 : 0.500

DATE 28 OCT 74

## ADDC VA-42211A-37. CROVET W/OTH SBS

## REFERENCE DATA

XREF = 2800,0000 50,FT.  
 YREF = 1280,3000 IN.  
 ZREF = 1280,3000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

L-375 = 3,000 FT-SUB = 3,000  
 S-375 = 3,330 FT-VL = 3,330  
 PT-1E7 = 1000,000 SEC-VA = .000

(CONT'D) (1, 27, APP 24.)

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RUN NO. 359 Q RVL = 1.49 GRADIENT INTERVAL = -3.00V 3.00

MACH	ALPHA	BETA	G1	C14	C7	C18	C21	C4
4.500	-10.000	-.00005	.17000	-.15654	-.01367	.00374	.00129	.14497
4.500	-9.000	.00024	.19305	-.16076	-.01538	.00402	.00162	.13933
4.500	-8.000	.00056	.20838	-.16491	-.01673	.00534	.00188	.13153
4.500	-7.000	.00083	.22886	-.17123	-.01797	.00725	.00200	.12443
4.500	-6.000	.00116	.24793	-.17845	-.01913	.00919	.00219	.11753
4.500	-5.000	.00157	.26537	-.18559	-.02097	.01133	.00236	.11153
4.500	-4.000	.00200	.28573	-.18854	-.02423	.01373	.00269	.10558
4.500	-3.000	-.00221	.30553	-.19478	-.02813	.01714	.00317	.10053
4.500	-2.000	-.00353	.33916	-.21977	-.03245	.02245	.00394	.09231
4.500	-1.000	-.00092	.36355	-.22897	-.03716	.02816	.00426	.08253
4.500	.000	.00260	.42128	-.24933	-.04102	.03332	.00458	.07119
4.500	1.000	.00537	.45359	-.25947	-.04504	.03863	.00483	.06571
4.500	2.000	.00726	.48515	-.27216	-.04923	.04431	.00521	.05953
4.500	3.000	.00920	.51581	-.28174	-.05339	.05059	.00560	.05234
4.500	4.000	.01125	.52289	-.29146	-.05723	.05626	.00601	.04551
4.500	5.000	.01327	.54616	-.29736	-.06151	.06203	.00648	.03820
4.500	6.000	.01529	.57169	-.30791	-.06563	.06784	.00692	.03168
4.500	7.000	.01725	.59742	-.31817	-.07014	.07364	.00732	.02568
4.500	8.000	.02123	.62443	-.32868	-.07535	.07954	.00761	.02051
4.500	9.000	-.00077	.65624	-.34039	-.08173	.08592	.01232	
4.500	10.000	.00340	.68416	-.35019	-.08755	.09235	.01635	.01935
	GRADIENT	.00034						.01647

DATE 29 OCT 74

## ADDC VA-422(1A-57), GRAYET WOOTH 860

## REFERENCE DATA

SREF = 2850,000 SC.FT. XREF = 1052,000 IN. XT  
 UREF = 1250,3000 IN. YREF = 447,000 IN. YT  
 GREF = 1250,3000 IN. ZREF = .0100  
 SCALE = .0100

ORIGIN ( 16 APR 74 )

## PARAMETRIC DATA

L-REF = 3,000 R-REF = 3,000  
 SREF = 3,300 RFL = 1,000  
 PT-JET = 1500,000 ALFA = .0000

ROW NO.	540 0	RFL = 1.00	GRADIENT INTERVAL = -3.00/ 3.00
MACH	BETA	ALPHA	ON
4.500	-10.000	.31431	-.103059
4.502	-9.000	.31443	-.103057
4.503	-8.000	.31445	-.103057
4.504	-7.000	.31446	-.103056
4.505	-6.000	.31447	-.103056
4.506	-5.000	.31447	-.103056
4.507	-4.000	.31448	-.103056
4.508	-3.000	.31448	-.103056
4.509	-2.000	.31448	-.103056
4.510	-1.000	.31448	-.103056
4.511	.000	.31448	-.103056
4.512	.000	.31448	-.103056
4.513	1.000	.31448	-.103056
4.514	2.000	.31448	-.103056
4.515	3.000	.31448	-.103056
4.516	4.000	.31448	-.103056
4.517	5.000	.31448	-.103056
4.518	6.000	.31448	-.103056
4.519	7.000	.31448	-.103056
4.520	8.000	.31448	-.103056
4.521	9.000	.31448	-.103056
4.522	10.000	.31448	-.103056
GRADIENT	.00334	-.00327	.00199

DATE 29 OCT 74

AEDC VA-42211A-37. CR/ET W/OTH 308

## REFERENCE DATA

REFID = 2680.0000 50.FT. XREF = 1052.0000 IN. XT  
 LREF = 1280.3000 IN. YREF = .0000 IN. YT  
 SREF = 1280.3000 IN. ZREF = 447.0000 IN. ZT  
 SCALE = .0100

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ORIGIN ( 18 APR 74 )

## PARAMETRIC DATA

L-SUB = 3.000 R-SUB = 3.000  
 SRPOS = 3.300 RVL = 1.700  
 PT-JET = .000 BETA = .000

RUN NO. 32/0 RVAL = 1.84 GRADIENT INTERVAL = -3.00/ 3.00

MACH	ALPHA	BETA	C1	C1'	CIN	CIR	CA
4.500	-10.000	-.00418	.28669	.00942	-.00523	.00117	.00037
4.500	-9.000	-.00326	.27343	.00305	-.00116	.00056	.00039
4.500	-8.000	-.00225	.24994	.07749	-.00460	.00060	.00039
4.500	-7.000	-.00117	.22431	.07131	-.00479	.00065	.00031
4.500	-6.000	-.00044	.19737	.06402	-.00334	.00047	.00021
4.500	-5.000	.00040	.16965	.05532	-.00447	.00051	.00016
4.500	-4.000	.00136	.14232	.04669	-.00491	.00021	.00012
4.500	-3.000	.00219	.11326	.03841	-.00359	-.00011	.00037
4.500	-2.000	.00320	.08169	.03091	-.00337	-.00022	-.00031
4.500	-1.000	.00425	.06224	.02513	-.00369	-.00019	.00005
4.500	.000	.00457	.04233	.01591	-.00374	-.00022	-.00005
4.500	1.000	.00501	.01324	.00875	-.00401	.00028	-.00009
4.500	2.000	.00582	.00464	.00239	-.00435	.00043	-.00012
4.500	3.000	.00637	.02456	-.00219	-.00467	.00068	-.00030
4.500	4.000	.00784	.04334	-.00587	-.00394	.00055	-.00062
4.500	5.000	.00902	.06293	-.01021	-.00541	.00035	-.00031
4.500	6.000	.01076	.08250	-.01486	-.00634	.00058	-.00052
4.500	7.000	.01313	.10339	-.01966	-.00767	.00093	-.00096
4.500	8.000	.01509	.12775	-.02694	-.00930	.00145	-.00133
4.500	9.000	.01564	.15352	-.03459	-.00953	.00206	-.00116
4.500	10.000	.01681	.18048	-.04288	-.00902	.00269	-.00025
	GRADIENT	.00060	.02396	-.00665	-.00104	.0003	-.00007

DATE 29 OCT 74

AEDC VA-422(1A-17), ORBIT W/BOTH SRB

## REFERENCE DATA

SREF = 2690.0000 SA. FT.  
 LREF = 1290.3000 IN.  
 BREF = 1290.3000 IN.  
 SCALE = .0130

## REFERENCE DATA

XMRP = 1092.0000 IN. XT  
 YMRP = .0000 IN. YT  
 ZMRP = 447.0000 IN. ZT

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(RT1037) (18 APR 74.)

## PARAMETRIC DATA

TRAN NO.	R3V 0	RNL = 1.84	GRADIENT INTERVAL = -5.00	5.00
MACH	BETA	ALPHA	C <sub>1</sub>	C <sub>1'</sub>
4.500	-10.000	-.12774	.01932	.30192
4.500	-9.000	-.12226	.01706	.26959
4.500	-8.000	-.11612	.01747	.23113
4.500	-7.000	-.11038	.02244	.19912
4.500	-6.000	-.10471	.02495	.16756
4.500	-5.000	-.10149	.02532	.13683
4.500	-4.000	-.09822	.02417	.10172
4.500	-3.000	-.09408	.02345	.07116
4.500	-2.000	-.09059	.02424	.04100
4.500	-1.000	-.08819	.02340	.01774
4.500	.000	-.08654	.02270	.02275
4.514	1.000	-.08391	.02483	.02517
4.500	2.000	-.08228	.02634	.02727
4.500	3.000	-.08132	.02709	.02852
4.500	4.000	-.08010	.02696	.02868
4.500	5.000	-.08148	.02677	.02993
4.500	6.000	-.08326	.02658	.02860
4.500	7.000	-.08421	.02631	.02849
4.500	8.000	-.08507	.02612	.02926
4.500	9.000	-.08594	.02600	.02995
4.500	10.000	-.08751	.02622	.02852
	GRADIENT	.00211	-.00142	.00064

L-SRB = 3.000  
 SRBOS = 3.300  
 PR-JET = .000  
 ALPHA = .000

R-SRB = 3.000  
 R-SRL = 3.300  
 ALPHA = .000

## REFERENCE DATA

SPEF = 2690,0000 90. FT. XREF = 1032,0000 IN. XT  
 UREF = 1290,3000 IN. YREF = .0000 IN. YT  
 SPEF = 1290,3000 IN. ZREF = 447,0000 IN. ZT  
 SCALE = .0100

## PARAMETRIC DATA

L-SPEF = 3,000 R-SPEF = 3,000  
 SREF-OE = 3,500 RIVL = 1,700  
 PT-JET = 750,000 BETA = .000

RUN NO. 51/0 RIVL = 1.04

GRADIENT INTERVAL = -5.00V 5.00

MAON	ALPHA	BETA	CH	CM	CR	CTN	CL	CA
4.500	-10,000	-.00417	.03897	.03939	-.00124	-.00076	.00003	.16194
4.500	-9,000	-.00313	.03819	.03914	-.00084	-.00059	.00015	.16026
4.500	-8,000	-.00214	.03792	.02759	-.00111	-.00053	.00017	.17635
4.500	-7,000	-.00237	.03268	.01936	-.00284	-.00045	.00020	.17540
4.500	-6,000	-.00079	.03275	.02868	-.00473	-.00076	-.00015	.17235
4.500	-5,000	-.00040	.03614	.00706	-.00799	.00259	-.00110	.16897
4.500	-4,000	-.00113	.01925	.03287	-.01211	.00553	-.00253	.16317
4.500	-3,000	-.00164	.03279	.06326	-.01443	.00669	-.00307	.16039
4.500	-2,000	-.00169	.06611	.09465	-.01744	.00850	-.00362	.15616
4.500	-1,000	-.00231	.13893	.12493	-.01936	.00988	-.00363	.15322
4.500	.000	-.00287	.18783	.15182	-.02138	.01135	-.00360	.15254
4.500	1,000	-.00130	.23344	.17515	-.02204	.01151	-.00363	.15249
4.500	2,000	-.00147	.27501	.19505	-.02217	.01053	-.00296	.15235
4.500	3,000	-.00182	.29711	.19916	-.02220	.01076	-.00287	.15276
4.500	4,000	-.00373	.28690	.18141	-.02213	.01016	-.00150	.15267
4.500	5,000	-.00468	.27674	.16726	-.02612	.01213	-.00222	.14926
4.500	6,000	-.00572	.29173	.16985	-.02646	.01217	-.00226	.14734
4.500	7,000	-.00776	.33241	.18554	-.02814	.01243	-.00259	.15668
4.500	8,000	-.00379	.36047	.19556	-.02939	.01416	-.00331	.15377
4.500	9,000	-.00477	.38050	.20416	-.02818	.01430	-.00293	.15327
4.500	10,000	-.00935	.40468	.21727	-.02819	.02037	-.00346	.12757
GRADIENT	.00058	.03816	-.01864	-.00151	.00078	.0002	-.00193	

DATE 20 OCT 74

ADDC VA-422(1A-27), COMET WORTH 200

## REFERENCE DATA

SREF = 2000.0000 SQ.FT.  
 LREF = 1250.3000 IN.  
 BREF = 1250.3000 IN.  
 SCALE = .0100

## REFERENCE DATA

SREF = 1032.0000 IN. XT  
 LREF = .0000 IN. YT  
 BREF = 447.0000 IN. ZT

ATTACHMENT (16 APR 74)

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## PARAMETRIC DATA

RUN NO.	SOL 0	BVAL = 1.04	GRADIENT INTERVAL = -5.00 5.00						
			BETA	ALPHA	C1	C2	C3	C4	C5
4.500	-10.000	-.22161	.16176	-.145207	.37677	-.15117	.05225	.17048	
4.500	-9.000	-.21758	.15841	-.13928	.35004	-.15329	.04629	.17050	
4.500	-8.000	-.21313	.15636	-.13846	.28359	-.11546	.04014	.17439	
4.500	-7.000	-.20758	.15750	-.13680	.23744	-.09749	.03897	.17098	
4.500	-6.000	-.20212	.15466	-.13425	.19217	-.07944	.02811	.16734	
4.500	-5.000	-.19615	.15221	-.13323	.15078	-.06144	.02217	.16199	
4.500	-4.000	-.19055	.14708	-.13073	.11235	-.04473	.01616	.15727	
4.500	-3.000	-.18956	.14314	-.12827	.07126	-.02795	.01044	.15387	
4.500	-2.000	-.18922	.13935	-.12342	.03495	-.01332	.00312	.15082	
4.500	-1.000	-.18277	.13694	-.12493	.00144	.00219	-.00037	.14793	
4.500	.000	-.18085	.14066	-.12346	.03671	.01697	-.00394	.14260	
4.500	1.000	-.17813	.13988	-.12355	.07498	.03352	-.01145	.15293	
4.500	2.000	-.17746	.14275	-.12455	.11368	.04992	-.01663	.15697	
4.500	3.000	-.17674	.14669	-.12707	.15225	.06503	-.02190	.16115	
4.500	4.000	-.17676	.14634	-.12769	.19026	.07998	-.02714	.16522	
4.500	5.000	-.19164	.15050	-.12964	.22385	.09593	-.03273	.17053	
4.500	6.000	-.18283	.15359	-.13227	.26766	.11153	-.03832	.17158	
4.500	7.000	-.18354	.15869	-.13586	.30776	.12615	-.04326	.17179	
4.500	8.000	-.18473	.16187	-.13824	.34958	.14229	-.04941	.17429	
4.500	9.000	-.18678	.16770	-.14224	.39268	.15873	-.05359	.17708	
4.500	10.000	-.19284	.17278	-.14659	.44016	.17693	-.05939	.18352	
GRADIENT	.00167	.00015	.00033	.03776	.01565	.00343	.00107		

DATE 26 OCT 74

AEDC VA-42211A-37. COMPT WASHN 388

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## REFERENCE DATA

SREF	=	2890.0000 SQ.FT.	XMRP	=	1052.0000 IN. XT
LREF	=	1290.3000 IN.	YMRP	=	.0000 IN. YT
SREF	=	1290.3000 IN.	ZMRP	=	447.0000 IN. ZT
SCALE	=	.0100			

RUN NO. 47/0 RVL = 1.85 GRADIENT INTERVAL = -5.00 5.00

WCH	ALPHA	BETA	ON	CLW	CY	CN	CL	CA
4.500	-10.000	-.00167	.1117	-.14079	-.00707	.00212	.00050	.16502
4.500	-9.000	-.00149	.14742	-.14698	-.00638	.00152	.00056	.16444
4.500	-8.000	-.00147	.18076	-.16711	-.00560	.00126	.00053	.16398
4.500	-7.000	-.00270	.20964	-.17749	-.00704	.00274	.00026	.15843
4.500	-6.000	-.00342	.23195	-.18987	-.00758	.00345	.00023	.14717
4.500	-5.000	-.00359	.24577	-.19525	-.00417	.00221	.00026	.13921
4.500	-4.000	-.00276	.25968	-.19721	.00143	-.00359	.00151	.13167
4.500	-3.000	-.00208	.27586	-.19069	.00782	-.00363	.00194	.12647
4.500	-2.000	-.00027	.29327	-.19501	.01211	.00631	.00262	.12397
4.500	-1.000	-.00116	.31113	-.20346	.01218	.00575	.00206	.12239
4.500	.000	.00288	.33417	-.23922	.00846	-.00538	.00184	.12258
4.500	1.000	.01050	.37825	-.22867	-.00314	.00258	.00068	.11999
4.500	2.000	.00912	.41967	-.24782	.00353	-.00513	.00057	.12235
4.500	3.000	.00117	.45331	-.26692	.01495	-.00718	.00032	.12758
4.500	4.000	-.00235	.48423	-.28390	.01893	-.00744	.00051	.13139
4.500	5.000	-.00731	.51083	-.29656	.02111	-.00624	.00022	.13581
4.500	6.000	-.01020	.53899	-.30930	.01767	-.00325	.00065	.13802
4.500	7.000	-.01194	.56834	-.32128	.01609	-.00143	.00117	.14033
4.500	8.000	-.01230	.59760	-.33222	.01390	.00003	.00187	.14179
4.500	9.000	-.01286	.62655	-.34339	.01264	.00103	.00214	.14296
4.500	10.000	-.01166	.65620	-.35217	.01224	.00107	.00340	.14281
	GRADIENT	.00021	.02796	-.01167	.01169	-.0038	-.00013	-.00015

## REFERENCE DATA

FORMAT ( 16 APR 74 )

## PARAMETRIC DATA

L-SUB	=	3.000	R-SUB	=	3.000
SREFS	=	3.000	RNU	=	1.760
PT-JET	=	1500.000	BETA	=	.0000

DATE 29 OCT 74

AEDC VA-42211A-37, OBSET W/BOTH 908

REFERENCE DATA

XREF = 2000,000.000 99. FT. XREF = 1052,000 IN. Y1  
YREF = 1250,3000 IN. YREF = 0000 IN. Y2  
ZREF = 1250,3000 IN. ZREF = 447,000 IN. Z2  
SCALE = .0000

PARAMETRIC DATA:

RUN NO. 4800 RFL = 1.85 GRADIENT INTERVAL = -3.00/ 3.00  

MACH.	BETA	ALPHA	CN	CM	CD	CL		
4.500	-10.000	-.17219	.29397	-.18986	.34968	-.19405	.04501	.16757
4.500	-9.000	-.16628	.30351	-.18661	.26916	-.12737	.03772	.15819
4.500	-8.000	-.16359	.30663	-.19153	.20226	-.10447	.03145	.15908
4.500	-7.000	-.15923	.31450	-.19787	.19795	-.08568	.02825	.14507
4.500	-6.000	-.15733	.31679	-.20203	.15658	-.06581	.01943	.13611
4.500	-5.000	-.15238	.31694	-.20224	.12198	-.05116	.01393	.12664
4.500	-4.000	-.15086	.32255	-.20439	.09469	-.04008	.01016	.12147
4.500	-3.000	-.14795	.32375	-.20655	.06976	-.03023	.00772	.11735
4.500	-2.000	-.14457	.32322	-.20335	.04669	-.02177	.00490	.11395
4.500	-1.000	-.12498	.31724	-.22267	.02247	-.01336	.00315	.11251
4.500	.000	-.14413	.31340	-.20160	.00457	-.00335	.00020	.11000
4.500	1.000	-.14592	.31120	-.20126	.03548	-.01699	.00336	.12050
4.500	2.000	-.14729	.31111	-.20194	.06977	-.02815	.00725	.12253
4.500	3.000	-.14829	.31147	-.20148	.10443	-.04669	.01101	.12446
4.500	4.000	-.14894	.30396	-.19735	.14982	-.08669	.01584	.13675
4.500	5.000	-.14796	.30003	-.1974	.20334	-.09592	.02294	.14926
4.500	6.000	-.14760	.29253	-.19914	.26171	-.12767	.03155	.15713
4.500	7.000	-.14218	.26334	-.19265	.31987	-.15597	.04322	.15854
4.500	8.000	-.14000	.27178	-.17558	.37016	-.17446	.04756	.16354
4.500	9.000	-.13621	.28227	-.16923	.41119	-.18621	.05192	.16901
4.500	10.000	-.13632	.26152	-.16940	.45547	-.1961	.05426	.17322
	GRADIENT	.00025	-.00216	.00023	.00026	-.00336	.00023	.00203

OUTLOOK ( 18 APR 74 )

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DATE 29 OCT 74

AEDC VA-422(1A-57), CRUISE WOOTH SBD

## REFERENCE DATA

XREF = 2600,0000 30,FT.  
 YREF = 1250,3000 IN.  
 ZREF = 1250,3000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

L-582 = 3,0723 R-583 = 3,500  
 SHPOS = 3,300 PWVL = 2,100  
 PT-JET = 1500,000 BETA = .000

OUTLOOK ( 10 APR 74 )

PAGE 02

RUN NO. 44/0 RVAL = 2.22 GRADIENT INTERVAL = -1.00/ 3.00

MACH	ALPHA	BETA	CX	CY	CZ	CT	CTN	CHL	CA
4.310	-10.000	.00111	-.00010	-.00011	-.00017	.00003	.00004	.12470	
4.310	-9.000	.00103	.00453	-.01296	.00091	-.00143	.00169	.17731	
4.310	-8.000	.00212	.09214	-.12568	.00077	-.00153	.00169	.17952	
4.310	-7.000	.00198	.13997	-.16950	.00258	.00235	.00108	.16104	
4.310	-6.000	.00132	.18638	-.17145	.00268	.00227	.00119	.17941	
4.310	-5.000	.00046	.22950	-.19696	.00412	.00256	.00268	.17758	
4.310	-4.000	.00017	.29825	-.20114	.00747	.00606	-.00198	.17310	
4.310	-3.000	.00104	.27341	-.20238	.01155	.00829	-.00215	.15852	
4.310	-2.000	.00136	.281137	-.19821	.01259	.00673	-.002104	.14974	
4.310	-1.000	.00396	.29118	-.19973	.01436	.00836	.00013	.14270	
4.310	.000	.00379	.30465	-.20163	.01097	.00603	-.00247	.14047	
4.310	1.000	.00219	.32058	-.20353	.0447	-.00312	-.00137	.13976	
4.310	2.000	.00110	.34171	-.21218	-.00445	.00159	-.00250	.14267	
4.310	3.000	.00280	.36834	-.22225	-.00867	.00259	-.00357	.14893	
4.310	4.000	-.00045	.40343	-.23760	-.00115	.00054	-.00391	.15104	
4.310	5.000	-.00336	.43863	-.23563	.00050	-.00116	-.00311	.15270	
4.310	6.000	-.00259	.47634	-.27758	.00013	.00021	-.00223	.15381	
4.310	7.000	-.00225	.51092	-.29521	.00469	.00344	-.00275	.15387	
4.310	8.000	-.00241	.54526	-.31143	.00134	.00793	-.00312	.15380	
4.310	9.000	-.00269	.57953	-.32653	-.00136	.01046	-.00330	.15420	
4.310	10.000	-.00256	.61393	-.34079	-.00422	.01217	-.00385	.15417	
GRADIENT	-.00044	.01676	-.00953	-.00396	-.00064	-.00227	-.00234		

DATE 22 OCT 74

AEDC VA-422(1A-57), CRUSET W/ BOTH SCS

PAGE 03

RELEASE (18 APR 74)

REFERENCE DATA

REFP = 2880.0000 SQ.FT.  
URF = 1290.3000 IN.  
SREF = 1290.3000 IN.  
SCALE = .0100

RUN NO. 45/0 RVAL = 2.23 GRADIENT INTERVAL = -3.000 5.00

PARAMETRIC DATA

L-SPL = 3.000 R-SPL = 3.000  
SEROS = 3.320 RVAL = 2.230  
PT-SET = 1500.000 ALPHA = .000

NO.	BETA	ALPHA	CH	CH'	CTN	CTN'	CL	CA
4.510	-10.000	-23790	.29300	-.20353	.37069	-.16948	.05234	.16904
4.510	-9.000	-23532	.29243	-.20222	.32085	-.14869	.04622	.16930
4.510	-8.000	-2327	.29264	-.19936	.27103	-.12825	.04426	.16922
4.510	-7.000	-20353	.28944	-.19825	.22233	-.10430	.03868	.16296
4.510	-6.000	-23099	.28498	-.19283	.17637	-.08131	.03219	.17476
4.510	-5.000	-22150	.28134	-.19204	.13370	-.06849	.02523	.16334
4.510	-4.000	-21286	.28323	-.19053	.09929	-.04469	.01916	.15519
4.510	-3.000	-20745	.28762	-.19376	.07210	-.03235	.01359	.14298
4.510	-2.000	-20456	.29380	-.19685	.04893	-.02402	.00922	.13645
4.510	-1.000	-20577	.29267	-.19937	.02993	-.01350	.00223	.13413
4.510	.000	-20566	.28918	-.19915	.01398	-.00356	.00038	.13663
4.510	1.000	-20773	.28562	-.19649	.03642	.01417	-.00939	.14160
4.510	2.000	-21729	.28934	-.19986	.07711	.03459	-.01666	.15614
4.510	3.000	-22429	.29253	-.20296	.12390	.05626	-.02639	.16922
4.510	4.000	-22175	.29202	-.20166	.16930	.07666	-.03141	.16753
4.510	5.000	-21440	.28272	-.19436	.21292	.09833	-.03437	.17156
4.510	6.000	-21193	.27173	-.19722	.26694	.12426	-.03836	.17666
4.510	7.000	-20720	.26193	-.18057	.32226	.14653	-.04226	.17927
4.510	8.000	-20715	.26392	-.17883	.37531	.16924	-.04773	.18253
4.510	9.000	-20970	.26120	-.18126	.42267	.18668	-.05268	.18583
4.510	10.000	-21276	.26796	-.19602	.47117	.20533	-.05734	.18856
	GRADIENT		-.000371	.00169	-.03347	.01559	-.00253	.00169

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

DATE 29 OCT 74

ADDC VA-42211A-97, CRUET W/OTH 3R8

## REFERENCE DATA

SREF = 2650,0000 SD.PT.  
 LREF = 1250,3500 IN.  
 SREF = 1250,3000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

L-SRF = 1,000 R-SRF = 2,000  
 SREF = 1,200 RFL = 1,760  
 PT-JET = .0000 ZETA = .0000

RUN NO.	SD / 0	RFL = 1.87	GRADIENT INTERVAL = -9.00/ 5.00						
			ALPHA	BETA	CN	CLW	CT	CTN	CR
4,-500	-10,000	-.02199	-.23650	.08647	.05714	-.01174	.00015	.00015	.24180
4,-500	-9,000	-.02306	-.27353	.06193	.05069	-.01319	.00492	.00492	.23683
4,-500	-8,000	-.02368	-.25952	.07347	.04382	-.01230	.00473	.00473	.22632
4,-500	-7,000	-.02277	-.22613	.06934	.03854	-.00937	.00446	.00446	.21764
4,-500	-6,000	-.02155	-.19977	.05262	.03236	-.00739	.00428	.00428	.21194
4,-500	-5,000	-.02061	-.17458	.05611	.02938	-.00430	.00383	.00383	.21527
4,-500	-4,000	-.01969	-.14998	.04899	.01988	-.00193	.00334	.00334	.19996
4,-500	-3,000	-.01956	-.12579	.04234	.01498	.00095	.00297	.00297	.19327
4,-500	-2,000	-.01943	-.09939	.03960	.01057	.00269	.00222	.00222	.19938
4,-500	-1,000	-.01975	-.07514	.03102	.00699	.00468	.00212	.00212	.19722
4,-500	0,000	-.02032	-.05170	.02838	.00364	.00093	.00163	.00163	.18980
4,-500	1,000	-.02019	-.02722	.01655	.00119	.00793	.00072	.00072	.17955
4,-500	2,000	-.02039	-.00344	.00950	-.00097	.00916	-.00082	.00082	.17488
4,-500	3,000	-.02011	.02723	.00019	-.00222	.00982	-.00201	.00201	.17281
4,-500	4,000	-.02037	.05368	-.00723	-.00371	.00951	-.00324	.00324	.17183
4,-500	5,000	-.02016	.07675	-.01412	-.00482	.01154	-.00335	.00335	.16940
4,-500	6,000	-.02220	.10220	-.02055	-.00929	.01235	-.00324	.00324	.16311
4,-500	7,000	-.02262	.12721	-.02737	-.00473	.01261	-.00370	.00370	.16160
4,-500	8,000	-.02250	.15149	-.03358	-.00301	.01180	-.00358	.00358	.15897
4,-500	9,000	-.02233	.17569	-.03974	-.00268	.01151	-.00382	.00382	.15621
4,-500	10,000	-.02249	.20000	-.04631	-.00195	.00958	-.00353	.00353	.15328
GRADIENT		-.00006	.02524	-.00868	-.00297	.00157	-.00350	.00350	

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(CONT'D) ( 16 APR 74 )

DATE 29 OCT 74

## AEDC VA-422(IA-37) - CRUISE WORTH 988

## REFERENCE DATA

SREF = 2000.0000 IN. FT.  
 UREF = 1250.0000 IN.  
 VREF = 1250.0000 IN.  
 ZREF = 1250.0000 IN.  
 SCALE = .010.

CRUISING (10 AM 74)

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## PARAMETRIC DATA

XREF = 1032.0000 IN. YT  
 YREF = 0000 IN. YT  
 ZREF = 447.0000 IN. ZT

RUN NO. 20/0 ROLL = 1.87

GRADIENT INTERVAL = -.5.00, 5.00

MACH	BETA	ALPHA	CN	CLW	CL	CM	CD	CA
4.500	-10.000	-14133	-.05555	.01569	.30211	-.05316	.03588	.20588
4.500	-9.000	-13532	-.05658	.01769	.29810	-.07217	.02667	.19918
4.500	-8.000	-12264	-.05792	.01963	.28349	-.05969	.02667	.19600
4.500	-7.000	-12232	-.06022	.02160	.20330	-.05216	.02355	.19386
4.500	-6.000	-11659	-.06268	.02486	.17149	-.04522	.02346	.19253
4.500	-5.000	-11163	-.06614	.02725	.13949	-.03535	.01725	.18993
4.500	-4.000	-10895	-.06952	.02948	.10946	-.02699	.01425	.18646
4.500	-3.000	-10511	-.07238	.03246	.06314	-.01822	.01083	.18353
4.500	-2.000	-10100	-.07532	.03539	.05153	-.00817	.00759	.18059
4.500	-1.000	-09802	-.07313	.03893	.02224	.00016	.00422	.16159
4.500	.000	-09537	-.07146	.02998	.00693	.00006	.00002	.16032
4.500	1.000	-09195	-.07163	.03153	.00326	.00004	.00002	.15927
4.500	2.000	-08938	-.07141	.03255	.00399	.00003	.00002	.15799
4.500	3.000	-08757	-.07055	.03316	.00392	.00003	.00002	.15644
4.500	4.000	-08592	-.06894	.03098	.012267	.00167	.00003	.15169
4.500	5.000	-08395	-.06587	.02857	.15273	.00994	.00004	.15257
4.500	6.000	-08166	-.06322	.02614	.18166	.05744	.00004	.15356
4.500	7.000	-08059	-.06080	.02396	.21472	.06744	.00004	.15231
4.500	8.000	-08075	-.05985	.02237	.24933	.07904	.00004	.15153
4.500	9.000	-08107	-.05907	.01988	.28558	.08057	.00004	.15172
4.500	10.000	-08072	-.05921	.01825	.32313	.10234	.00004	.15207
			GRADIENT	.00011	.00022	.02969	.00036	.00024
				.00273				

DATE 29 OCT 74

## AFDC VI-42211-37, OBJECT WORDS

## REFERENCE DATA

REF = 2800.0000 80.0T. XREF = 1332.0000 IN. Y1  
 LREF = 1330.0000 IN. YREF = .0000 IN. Y2  
 RREF = 1330.0000 IN. ZREF = .47.0000 IN. Z1  
 SCALE = .0100

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AFDC VI-42211-37, OBJECT WORDS

## PARAMETRIC DATA

L-300 = 1.000 R-300 = 2.000  
 SREF = 1.000 RFL = 1.000  
 PT-307 = 750.0000 BETA = .300

RUN NO. 160 RFL = 1.00 GRADIENT INTERVAL = -5.0W 5.0E

MACH	ALPHA	BETA	CN	CL	CD	CTN	CR	CA
4.500	-10.000	.08138	-1.676	-.01570	-1.3398	.02653	-.01591	.13223
4.500	-9.000	.03964	-1.4935	-.02046	-1.3410	.02668	-.01600	.12873
4.500	-8.000	.03931	-1.2274	-.02035	-1.3223	.02691	-.01593	.12216
4.500	-7.000	.03926	-1.0077	-.02935	-1.3243	.02631	-.01597	.12175
4.500	-6.000	.03924	-.08296	-.03422	-1.3316	.02720	-.01590	.11784
4.500	-5.000	.03936	-.06366	-.03855	-1.3465	.02679	-.01550	.11450
4.500	-4.000	.03938	-.04400	-.04248	-1.3342	.02619	-.01535	.11168
4.500	-3.000	.03934	-.02498	-.04614	-1.3282	.02644	-.01519	.10806
4.500	-2.000	.03941	-.03762	-.04920	-1.3366	.02347	-.01527	.10534
4.500	-1.000	.03964	.01397	.03224	-1.3616	.02353	-.01576	.10285
4.500	.000	.03974	.03953	.03528	-.135°	.02653	-.01550	.09993
4.500	1.000	.03928	.03122	.03839	-1.3379	.02653	-.01520	.09713
4.500	2.000	.03773	.06979	.06223	-1.2653	.02566	-.01783	.09593
4.500	3.000	.03558	.08696	.06559	-1.2370	.02415	-.01630	.09445
4.500	4.000	.03470	.10601	.07040	-1.1926	.02214	-.01612	.09398
4.500	5.000	.03389	.12563	.07394	-1.1465	.02015	-.01600	.09231
4.500	6.000	.03327	.14454	.07723	-1.0935	.01759	-.01590	.09139
4.500	7.000	.03279	.16407	.08073	-1.0340	.01493	-.01559	.09033
4.500	8.000	.03244	.18454	.08410	-1.0703	.01136	-.01797	.08836
4.500	9.000	.03443	.20732	.08678	-1.0222	.00793	-.01727	.08744
4.500	10.000	.03729	.23992	.09109	-1.0894	.00455	-.01716	.08551
	GRADIENT	-.00039	.01684	-.00347	.00179	-.00345	-.00342	-.00232

DATE 28 OCT 74

## AFDC VA-42211A-370. CRATER W/OTH SEA

## REFERENCE DATA

REF# = 2880.0000 SA, FT.  
 LNF# = 1250.0000 IN.  
 DREF# = 1250.0000 IN.  
 SCALE = .0100

RUN NO. 17/ 0 RFLV = 1.88 GRADIENT INTERVAL = -3.00/ 3.00

MACH	BETA	ALPHA	CN	CLW	CL	CM	CD	CG
4.500	-10.000	-.16169	.01209	-.04774	.00271	-.03867	.00267	-.12317
4.500	-9.000	-.15318	.01199	-.04735	.00264	-.02820	.00264	.12310
4.500	-8.000	-.15135	.01193	-.04692	.00251	-.01682	.00274	.03574
4.500	-7.000	-.14584	.02119	-.03706	-.00592	-.02946	.00456	.11635
4.500	-6.000	-.14743	.02694	-.03411	-.01059	-.03112	.01555	.12565
4.500	-5.000	-.13819	.03323	-.03507	.00894	-.03039	.02273	.10390
4.500	-4.000	-.13629	.03270	-.03660	-.06732	.01086	.01083	.10393
4.500	-3.000	-.13525	.02797	-.05461	-.08820	.01600	-.02204	.12522
4.500	-2.000	-.13559	.02410	-.05391	-.10759	.02169	-.03321	.09813
4.500	-1.000	-.13839	.03956	-.03403	-.12263	.02402	-.04336	.07473
4.500	.000	-.14999	.00236	-.03530	-.14148	.02777	-.05660	.06000
4.500	1.000	-.15250	-.00169	-.05130	-.16957	.03157	-.05211	.06334
4.500	2.000	-.15311	-.00162	-.04953	-.19735	.03464	-.01129	.11636
4.500	3.000	-.16286	-.00164	-.05103	-.21941	.03569	-.01997	.11697
4.500	4.000	-.17023	-.00157	-.05137	-.24346	.03669	-.01476	.11350
4.500	5.000	-.17676	-.00233	-.05160	-.25729	.03704	-.01621	.11559
4.500	6.000	-.18280	-.03106	-.05097	-.26356	.03824	-.01751	.11697
4.500	7.000	-.18899	-.03517	-.04979	-.31846	.03953	-.02218	.12226
4.500	8.000	-.19421	-.04783	-.04610	-.34732	.03953	-.02225	.12353
4.500	9.000	-.20204	-.03602	-.04653	-.37316	.03771	-.02269	.12475
4.500	10.000	-.20936	-.03630	-.04680	-.39072	.03833	-.02285	.12513
	GRADIENT	-.00419	-.00515	-.00357	-.02190	.03534	-.00159	.00164

REF#(S) : 118 APR 74 ]

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## HYDRAULIC DATA

L-SER = 1.000 R-SER = 2.000  
 SERPOS = 1.200 REV/L = 1.700  
 PT-JET = 1.000 ALPHA = .550

DATE 29 OCT 74

## AEDC VA-622(1A-37), OFFSET WGT IN SBS

## REFERENCE DATA

SQFT = 2600.0000 SQ.FT. DREF = 1032.0000 IN. XT  
 LREF = 1250.3000 IN. TREF = .0000 IN. YT  
 BREF = 1250.3000 IN. ZREF = 447.0000 IN. ZT  
 SCALE = .0100

## PARAMETRIC DATA

L-CDF = 1.500 E-352 = 2.000  
 SREFS = 1.250 FFL = 1.750  
 PT-SET = 1500.000 EEP = .000  
 RUN NO. 19/0 RFL = 1.67 GRADIENT INTERVAL = -3.00 3.00

MACH	ALPHA	BETA	CN	CLN	CT	CN	CL	CA
4.500	-10.000	.23986	-.13209	-.05312	-.22450	.03060	-.03787	.11517
4.500	-9.000	.23573	-.11155	-.03932	-.22187	.02747	-.03772	.11252
4.500	-8.000	.23801	-.08751	-.10433	-.21982	.02633	-.03744	.11076
4.500	-7.000	.23593	-.06853	-.10207	-.21753	.02543	-.03732	.10950
4.500	-6.000	.23487	-.04546	-.11232	-.21653	.02593	-.03751	.10810
4.500	-5.000	.22949	-.01936	-.11556	-.21105	.02675	-.03742	.10742
4.500	-4.000	.22351	.00426	-.11787	-.21532	.02719	-.03756	.10623
4.500	-3.000	.22531	.02639	-.12173	-.20779	.02791	-.03759	.10596
4.500	-2.000	.22264	.04534	-.12650	-.20560	.02821	-.03822	.10577
4.500	-1.000	.22329	.06469	-.12761	-.20663	.02846	-.03850	.09597
4.500	.000	.22738	.08185	-.12972	-.21144	.02853	-.03855	.09513
4.500	1.000	.23122	.08914	-.13126	-.21231	.02871	-.03851	.09490
4.500	2.000	.23536	.11537	-.13373	-.22562	.03053	-.03611	.09340
4.500	3.000	.23246	.13154	-.13675	-.21950	.03123	-.03592	.09292
4.500	4.000	.22521	.14910	-.14151	-.21824	.03152	-.03593	.09210
4.500	5.000	.21377	.17124	-.14685	-.21953	.03194	-.03603	.09108
4.500	6.000	.20020	.19224	-.15444	-.22229	.02992	-.03623	.09011
4.500	7.000	.18795	.21056	-.16861	-.21943	.02861	-.03636	.08732
4.500	8.000	.17893	.22416	-.15325	-.21737	.02593	-.03636	.08633
4.500	9.000	.17131	.23477	-.15883	-.21241	.02311	-.03639	.08531
4.500	10.000	.16345	.24750	-.16320	-.22660	.02252	-.03634	.08576
4.500	GRADIENT	-	.01636	-.00300	-.00146	.00364	-.00123	-.00156

ATTACHMENT ( 13 AND 74 )

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DATE 29 OCT 74

ANALYST VA-422(IA-37), CRUSET W/00H 320

REFERENCE DATA

SPD = 2000.0000 SQ.FT.  
LNG = 1250.3000 IN.  
ZDP = 1250.3000 IN.  
SCALE = .0100

RUN NO. 18/0 RVL = 1.86 GRADIENT INTERVAL = -.500/ .500

PARAMETRIC DATA

L-SR5 = 1,000 R-SR5 = 2,000  
SRPOS = 1,200 RVL = 1.86  
PT-JET = 1500.0000 ALTHA = .0000

MACH BEITA ALTHA ON CLW C1 C2 C3 C4  
4.500 -10.000 -21056 .0198 -.39734 -.08908 -.06795 .0265 .08922  
4.500 -9.000 -21237 .03987 -.10276 .07950 -.06255 .02260 .08793  
4.500 -6.000 -21637 .06920 -.11065 .06911 -.03690 .02633 .08612  
4.500 -7.000 -22762 .07631 -.12131 .01812 -.14636 .01707 .08446  
4.500 -6.000 -23838 .08145 -.13058 .01707 -.03643 .01202 .08278  
4.500 -5.000 -24643 .08286 -.13988 .05296 -.02644 .0093 .08056  
4.500 -4.000 -24774 .08221 -.13747 .08896 -.01571 .02256 .08925  
4.500 -3.000 -24875 .08114 -.13839 -.1204 -.03725 -.01027 .08856  
4.500 -2.000 -24876 .07819 -.13761 -.15560 .00223 -.00499 .08933  
4.500 .000 -245000 .07136 -.13339 -.16700 .01621 -.00746 .08870  
4.500 1.000 -23967 .04734 -.11944 -.21560 .01689 -.01036 .08193  
4.500 2.000 -23946 .04025 -.12096 -.25826 .02225 -.01059 .08362  
4.500 3.000 -28054 .02276 -.11967 -.27333 .02223 -.01171 .08561  
4.500 4.000 -26401 .01222 -.11553 -.25906 .02676 -.01253 .08479  
4.500 5.000 -27003 -.00228 -.11162 -.30511 .03006 -.01235 .08643  
4.500 6.000 -27335 -.01359 -.10826 -.32252 .03068 -.01220 .08691  
4.500 7.000 -26840 -.01695 -.10253 -.33977 .03063 -.01166 .08535  
4.500 8.000 -26071 -.01363 -.10436 -.35426 .03110 -.01101 .08531  
4.500 9.000 -25981 -.01514 -.10368 -.37343 .03169 -.01157 .08424  
4.500 10.000 -26438 -.01960 -.10573 -.39564 .03116 -.01412 .08627  
GRADIENT .00114 -.00874 .00263 -.02539 .03551 -.00167 .00075

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ENTRANCE (10 JET 74)

DATE 29 OCT 74

## AEDC VA-422(1A-97), ORBIT W/BOTH SRB

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(RTT/LD0) 1 16 APR 74 )

## REFERENCE DATA

SREF = 2800.0000 SQ.FT.	XRP = 1032.0000 IN. XT
UREP = 1250.3000 IN.	YRP = .0000 IN. YT
EREP = 1250.3000 IN.	ZRP = 447.0000 IN. ZT
SCALE = .0100	

RUN NO. 3600 RVAL = 1.86 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CLW	CT	CN	CL	CA
4.500	-10.000	.03068	-.28055	.08498	-.08468	.51623	-.00433	.23937
4.500	-9.000	.03032	-.27241	.08087	-.08069	.51555	-.00419	.23432
4.500	-8.000	.02983	-.24529	.07816	-.07827	.51282	-.00406	.22823
4.500	-7.000	.02930	-.22439	.07055	-.07051	.50993	-.00396	.22168
4.500	-6.000	.02892	-.19931	.06433	-.06433	.50754	-.00393	.21590
4.500	-5.000	.02851	-.17132	.05943	-.05933	.50580	-.00396	.20526
4.500	-4.000	.02768	-.14525	.04911	-.04911	.50393	-.00382	.19839
4.500	-3.000	.02762	-.12031	.04237	-.04237	.50236	-.00310	.19323
4.500	-2.000	.02846	-.09377	.03769	-.03769	.50112	-.00147	.18912
4.500	-1.000	.02923	-.07053	.03003	-.07155	.50345	-.00232	.18572
4.500	.000	.02977	-.04710	.02446	-.04705	.50334	-.00196	.18191
4.500	1.000	.03098	-.02257	.01794	-.01794	.50109	-.00720	.17943
4.500	2.000	.03198	-.00368	.00986	-.00986	.50098	-.00267	.17643
4.500	3.000	.03417	.02972	.00128	.00128	.50116	.00158	.17351
4.500	4.000	.03543	.05527	-.00659	-.00659	.50121	.00270	.17076
4.500	5.000	.03795	.07915	-.01345	-.01345	.50126	.00265	.16767
4.500	6.000	.04018	.10163	-.02019	-.02019	.50130	.00426	.16392
4.500	7.000	.04222	.12681	-.02717	-.02717	.50135	.00463	.16010
4.500	8.000	.04361	.15191	-.03424	-.03424	.501351	.00316	.15703
4.500	9.000	.04538	.17955	-.04223	-.04223	.501352	.00355	.15495
4.500	10.000	.04696	.20382	-.05047	-.05047	.501353	.00291	.15276
	GRADIENT	.00396	.02201	-.00693	-.00693	.501353	-.00335	

## PARAMETRIC DATA

DATE 22 OCT 74

ADDC VA-422(1A-37), CRUET WARM SRS

REFERENCE DATA

XRP = 2000.0000 IN. PT.  
YRP = 1032.0000 IN. XT  
ZRP = .0000 IN. YT  
BREP = 1250.0000 IN.  
SREP = 1250.0000 IN.  
SCALE = .0100

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(16 APR 74)

PARAMETRIC DATA

L-JET = 2.000  
SRP = 2.100  
PT-JET = .000  
ALPHA = .0000

PLAN NO. 37/0 RAVL = 1.00

	GRADIENT INTERVAL = -5.00 5.00							
MACH	BETA	ALPHA	ON	CIN	CY	CN	CL	CA
4.500	-10.000	-.14062	-.05024	.04321	.05527	-.05747	.05411	.05010
4.500	-9.000	-.13395	-.05267	.04613	.04923	-.06933	.02982	.02035
4.500	-8.000	-.12782	-.05956	.04814	.04176	-.07176	.02135	.01971
4.500	-7.000	-.12163	-.05986	.02186	.16244	-.06462	.11239	.10943
4.500	-6.000	-.11574	-.06215	.02432	.15025	-.05913	.01742	.10164
4.500	-5.000	-.11136	-.06450	.02389	.11905	-.04326	.01377	.08975
4.500	-4.000	-.10630	-.06693	.02790	.06866	-.03620	.01026	.08112
4.500	-3.000	-.10213	-.06746	.02040	.08023	-.02771	.00699	.08273
4.500	-2.000	-.09871	-.06711	.02794	.03170	-.01922	.01088	.10789
4.500	-1.000	-.09498	-.06731	.02609	.03058	-.03939	-.00002	.11972
4.500	.000	-.09154	-.06893	.03061	.02869	-.03036	-.00354	.10937
4.500	1.000	-.08943	-.06889	.03053	.03702	-.00322	-.00685	.11186
4.500	2.000	-.08796	-.06787	.03052	.08597	.01614	-.01029	.10413
4.500	3.000	-.08667	-.06875	.03059	-.11316	.02693	-.01313	.10501
4.500	4.000	-.08691	-.06899	.03053	-.13960	.02708	-.01572	.10460
4.500	5.000	-.08697	-.06946	.02874	-.16756	.03457	-.01941	.10405
4.500	6.000	-.08719	-.06793	.02691	-.19815	.04302	-.02137	.10533
4.500	7.000	-.08638	-.06606	.02467	-.22952	.05222	-.02433	.10685
4.500	8.000	-.08654	-.06402	.02293	-.26294	.06227	-.02775	.10863
4.500	9.000	-.08691	-.06324	.02160	-.29701	.07243	-.03138	.10979
4.500	10.000	-.08712	-.06323	.02091	-.33163	.08053	-.03507	.10553
			.03246	-.00040	.00033	-.02673	-.00003	-.00027

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

DATE 29 OCT 74

AEADC VVA-42211A-57N, CROVET V/BOOTH 386

## REFERENCE DATA

SREF = 2000.0000 SQ.FT.  
 LREF = 1250.0000 IN.  
 BREF = 1250.0000 IN.  
 SCALE = .0100

XRP = 1032.0000 IN. XT  
 YRP = .0000 IN. YT  
 ZRP = 447.0000 IN. ZT

ATRLO2 (10 APR 74)

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## PARAMETRIC DATA

	RUN NO.	30° D	RVAL = 1.00	GRADIENT INTERVAL = -3.00V	5.00	CY	CIN	CR	CA
MACH	ALPHA	BETA	CI	CLH					
4.500	-10.000	-.19559	-.11704	-.11974	.16873	-.00031	.00024	.12070	
4.500	-9.000	-.19723	-.09527	-.12433	.16734	-.00010	.00017	.11669	
4.500	-8.000	-.19768	-.07293	-.12767	.16731	-.00009	.00026	.11622	
4.500	-7.000	-.19666	-.05075	-.13016	.16734	-.00012	.00058	.11449	
4.500	-6.000	-.19553	-.02932	-.13216	.16531	-.00151	.00090	.11257	
4.500	-5.000	-.18923	-.00615	-.13498	.16234	-.00143	.00081	.11108	
4.500	-4.000	-.18032	.01152	-.13787	.15548	-.00097	.00070	.11036	
4.500	-3.000	-.17558	.02657	-.13991	.15268	-.00029	.00684	.10791	
4.500	-2.000	-.17033	.04693	-.14180	.15300	-.00477	.00691	.10531	
4.500	-1.000	-.16985	.06620	-.14384	.15450	-.00536	.00661	.10263	
4.500	.000	-.16972	.08363	-.14603	.15858	-.00764	.00648	.10074	
4.500	1.000	-.17207	.10602	-.14841	.16846	-.01140	.00717	.09984	
4.500	2.000	-.16310	.13016	-.15230	.17654	-.01610	.00987	.09807	
4.500	3.000	-.15070	.15962	-.15543	.18178	-.02643	.01121	.09774	
4.500	4.000	-.13499	.18756	-.15853	.18106	-.03242	.01274	.09617	
4.500	5.000	-.11823	.20576	-.16151	.17734	-.03731	.01382	.09405	
4.500	6.000	-.10319	.22075	-.16304	.17664	-.04233	.01421	.09298	
4.500	7.000	-.09620	.23142	-.16128	.17809	-.04568	.01340	.09246	
4.500	8.000	-.08982	.23750	-.15743	.17257	-.04646	.01235	.09232	
4.500	9.000	-.08232	.24534	-.15572	.16942	-.04597	.01196	.08776	
4.500	10.000	-.07573	.25953	-.15472	.15742	-.04469	.01156	.08520	
	GRADIENT	.00555	.02149	-.01265	.01297	-.01367	.00069	-.00171	

DATE 28 OCT 74

## ADDC VII-422(11-57) - CRUET WORTH SAE

## REFERENCE DATA

STEP = 2000.0000 50.17. XREF = 1002.0000 IN. XT  
 URF = 1220.3000 IN. YREF = 1000.0000 IN. YT  
 BRF = 1220.3000 IN. ZREF = 447.0000 IN. ZT  
 SCALE = .0100

## PARAMETRIC DATA

MACH	BETA	ALPHA	CN	CLW	CY	CN	CL	CD
4.500	-10.000	-.33532	-.01059	-.12253	.34369	-.04316	.01250	.20837
4.500	-9.000	-.32806	-.00400	-.12050	.32462	-.03551	.01175	.20867
4.500	-8.000	-.32140	.00251	-.12050	.30263	-.03551	.01323	.20869
4.500	-7.000	-.31262	.01249	-.12577	.28139	-.02865	.01193	.20720
4.500	-6.000	-.30362	.02450	-.12892	.25992	-.02940	.01044	.20512
4.500	-5.000	-.28176	.03855	-.12760	.24996	-.02845	.00967	.20456
4.500	-4.000	-.25250	.04275	-.12817	.23750	-.02816	.01050	.20550
4.500	-3.000	-.26559	.03559	-.12358	.22273	-.02372	.01106	.20262
4.500	-2.000	-.27551	.02535	-.14033	.19279	-.01283	.00967	.09605
4.500	-1.000	-.27371	.06527	-.14356	.15911	-.03505	.00555	.09595
4.500	.000	-.26753	.07352	-.14931	.12703	-.01116	.00410	.09410
4.500	1.000	-.25269	.08769	-.14723	.09379	-.00824	.00130	.09168
4.500	2.000	-.22699	.11011	-.14775	.06121	.01632	-.01172	.08896
4.500	3.000	-.20513	.11651	-.14221	.02353	.02563	-.00992	.08752
4.500	4.000	-.18743	.11030	-.13145	.01499	.03769	-.01216	.08652
4.500	5.000	-.17614	.09783	-.12024	.03176	.04869	-.01714	.08517
4.500	6.000	-.16818	.08574	-.11184	.07011	.05223	-.01976	.08607
4.500	7.000	-.16691	.07425	-.10396	.10045	.05421	-.02054	.08645
4.500	8.000	-.16769	.06660	-.10203	.12331	.05651	-.02161	.09113
4.500	9.000	-.16555	.06220	-.09936	.14217	.05959	-.02233	.09455
4.500	10.000	-.16142	.06016	-.09738	.1660	.06473	-.02323	.08744
	GRADIENT	.01024	.00742	-.00300	-.03116	-.00791	-.00277	-.00215

MATERIAL ( 10 APR 74 )

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DATE 29 OCT 74

## AEDC VA-422(1A-371) CRIVET W/BOTH 380

## REFERENCE DATA

BREF = 2850.0000 SQ.FT.  
 LREF = 1250.3000 IN.  
 MREF = 1250.3000 IN.  
 SREF = .0100  
 SCALE =

XRP = 1052.0000 IN. XT  
 YRP = .0000 IN. YT  
 ZRP = 447.0000 IN. ZT

RUN NO.

40/0

RVAL = 1.00

GRADIENT INTERVAL = -5.00

5.00

MACH	ALPHA	BETA	CN	CLN	CT	CTN	CDL	CA
4.500	-10.000	.01639	-.29115	.00002	-.00148	.00002	.00002	.21353
4.500	-9.000	.01554	-.26946	.00190	.00119	-.00221	.00036	.20963
4.500	-8.000	.01514	-.24514	.07702	.00186	-.00268	.00032	.20305
4.500	-7.000	.01492	-.21936	.07003	.00368	-.00420	.00026	.19519
4.500	-6.000	.01426	-.19247	.06239	.00344	-.00350	.00019	.19316
4.500	-5.000	.01334	-.16971	.05530	.00363	-.00353	.00011	.19133
4.500	-4.000	.01256	-.14013	.04607	.00322	-.00312	.00004	.18591
4.500	-3.000	.01131	-.11457	.04039	.00309	-.00266	.00003	.18032
4.500	-2.000	.01017	-.09026	.03348	.00322	-.00273	.00001	.17461
4.500	-1.000	.00910	-.06824	.02710	.00336	-.00285	.00001	.17159
4.500	.000	.00779	-.04434	.02166	.00291	-.00271	-.00007	.16931
4.500	1.000	.00651	-.02011	.01426	.00218	-.00213	.00037	.16516
4.500	2.000	.00568	-.01261	.00923	.00091	-.00170	.00112	.17223
4.500	3.000	.00513	-.00804	.00568	.00047	-.00029	.00086	.17171
4.500	4.000	.00465	-.00390	.00361	.01069	-.00593	.00243	.16907
4.500	5.000	.00432	-.00213	-.01607	.01042	-.00652	.00272	.16749
4.500	6.000	.00461	-.00169	-.02359	.01015	-.01006	.00261	.16492
4.500	7.000	.00503	-.00057	-.03064	.00966	-.01071	.00263	.16207
4.500	8.000	.00517	.00043	-.03780	.00964	-.01094	.00266	.16036
4.500	9.000	.00346	.00074	-.04514	.00872	-.01054	.00256	.15831
4.500	10.000	.00194	.00895	-.02277	.00929	-.01074	.00215	
4.500	GRADIENT	-.00098	.02144	-.00693	.00445	-.00035	.00262	

## PARAMETRIC DATA

(MACH) ( 10 APR 74 )

PAGE 74

DATE 29 OCT 74

## AEDC VA-42211A-571, CRUET W/ BOTH SPS

PAGE 72

(ATL053) (18 APR 74)

## REFERENCE DATA

SREF = 2680,0000 80,77.  
 UREF = 1290,3000 IN.  
 VREF = 1290,3000 IN.  
 ZREF = 1290,3000 IN.  
 SCALE = .3100

## PARAMETRIC DATA

L-SPL = 2,000  
 M-SPL = 2,300  
 R-SPL = 3,000  
 RVL = 1,700  
 ALPHA = .000

RUN NO.	41/ D	RVL = 1.86	GRADIENT INTERVAL = -5.00/ 5.00
MACH	BETA	ALPHA	CY
4.500	-10.000	-.13930	.31342
4.500	-9.000	-.13834	-.10367
4.500	-8.000	-.12395	.28033
4.500	-7.000	-.11710	-.00212
4.500	-6.000	-.11324	.01849
4.500	-5.000	-.10537	-.24598
4.500	-4.000	-.10190	.02191
4.500	-3.000	-.09757	-.05117
4.500	-2.000	-.09311	.02173
4.500	-1.000	-.08987	-.06106
4.500	.000	-.08555	.16381
4.500	.000	-.08300	-.06351
4.500	.000	-.08123	.02932
4.500	.000	-.08056	-.06354
4.500	.000	-.08000	.02892
4.500	.000	-.07936	-.06356
4.500	.000	-.07873	.02854
4.500	.000	-.07800	-.06356
4.500	.000	-.07723	.02817
4.500	.000	-.07649	-.06357
4.500	.000	-.07570	.02737
4.500	.000	-.07500	-.06427
4.500	.000	-.07420	.02657
4.500	.000	-.07340	-.06437
4.500	.000	-.07260	.02576
4.500	.000	-.07180	-.06447
4.500	.000	-.07100	.02496
4.500	.000	-.07020	-.06457
4.500	.000	-.06940	.02416
4.500	.000	-.06860	-.06467
4.500	.000	-.06780	.02335
4.500	.000	-.06700	-.06476
4.500	.000	-.06620	.02254
4.500	.000	-.06540	-.06485
4.500	.000	-.06460	.02175
4.500	.000	-.06380	-.06495
4.500	.000	-.06300	.02094
4.500	.000	-.06220	-.06504
4.500	.000	-.06140	.02013
4.500	.000	-.06060	-.06513
4.500	.000	-.05980	.01932
4.500	.000	-.05900	-.06522
4.500	.000	-.05820	.01851
4.500	.000	-.05740	-.06531
4.500	.000	-.05660	.01769
4.500	.000	-.05580	-.06541
4.500	.000	-.05500	.01688
4.500	.000	-.05420	-.06550
4.500	.000	-.05340	.01606
4.500	.000	-.05260	-.06559
4.500	.000	-.05180	.01524
4.500	.000	-.05100	-.06568
4.500	.000	-.05020	.01443
4.500	.000	-.04940	-.06577
4.500	.000	-.04860	.01361
4.500	.000	-.04780	-.06586
4.500	.000	-.04700	.01279
4.500	.000	-.04620	-.06595
4.500	.000	-.04540	.01196
4.500	.000	-.04460	-.06604
4.500	.000	-.04380	.01115
4.500	.000	-.04300	-.06613
4.500	.000	-.04220	.01032
4.500	.000	-.04140	-.06622
4.500	.000	-.04060	.00950
4.500	.000	-.03980	-.06631
4.500	.000	-.03900	.00868
4.500	.000	-.03820	-.06639
4.500	.000	-.03740	.00787
4.500	.000	-.03660	-.06648
4.500	.000	-.03580	.00706
4.500	.000	-.03500	-.06656
4.500	.000	-.03420	.00625
4.500	.000	-.03340	-.06665
4.500	.000	-.03260	.00543
4.500	.000	-.03180	-.06673
4.500	.000	-.03100	.00461
4.500	.000	-.03020	-.06681
4.500	.000	-.02940	.00379
4.500	.000	-.02860	-.06689
4.500	.000	-.02780	.00298
4.500	.000	-.02700	-.06698
4.500	.000	-.02620	.00217
4.500	.000	-.02540	-.06706
4.500	.000	-.02460	.00135
4.500	.000	-.02380	-.06714
4.500	.000	-.02300	.00053
4.500	.000	-.02220	-.06722
4.500	.000	-.02140	.00071
4.500	.000	-.02060	-.06730
4.500	.000	-.01980	.00089
4.500	.000	-.01900	-.06739
4.500	.000	-.01820	.00008
4.500	.000	-.01740	-.06748
4.500	.000	-.01660	.00027
4.500	.000	-.01580	-.06756
4.500	.000	-.01500	.00045
4.500	.000	-.01420	-.06765
4.500	.000	-.01340	.00063
4.500	.000	-.01260	-.06773
4.500	.000	-.01180	.00081
4.500	.000	-.01100	-.06781
4.500	.000	-.01020	.00099
4.500	.000	-.00940	-.06789
4.500	.000	-.00860	.00117
4.500	.000	-.00780	-.06798
4.500	.000	-.00700	.00135
4.500	.000	-.00620	-.06806
4.500	.000	-.00540	.00153
4.500	.000	-.00460	-.06814
4.500	.000	-.00380	.00171
4.500	.000	-.00300	-.06822
4.500	.000	-.00220	.00189
4.500	.000	-.00140	-.06830
4.500	.000	-.00060	.00207
4.500	.000	.00020	-.06838
4.500	.000	.00080	.00225
4.500	.000	.00140	-.06845
4.500	.000	.00200	.00243
4.500	.000	.00260	-.06853
4.500	.000	.00320	.00261
4.500	.000	.00380	-.06860
4.500	.000	.00440	.00279
4.500	.000	.00500	-.06868
4.500	.000	.00560	.00297
4.500	.000	.00620	-.06876
4.500	.000	.00680	.00315
4.500	.000	.00740	-.06884
4.500	.000	.00800	.00333
4.500	.000	.00860	-.06892
4.500	.000	.00920	.00351
4.500	.000	.00980	-.06899
4.500	.000	.01040	.00369
4.500	.000	.01100	-.06907
4.500	.000	.01160	.00387
4.500	.000	.01220	-.06915
4.500	.000	.01280	.00405
4.500	.000	.01340	-.06923
4.500	.000	.01400	.00423
4.500	.000	.01460	-.06931
4.500	.000	.01520	.00441
4.500	.000	.01580	-.06939
4.500	.000	.01640	.00459
4.500	.000	.01700	-.06947
4.500	.000	.01760	.00477
4.500	.000	.01820	-.06955
4.500	.000	.01880	.00495
4.500	.000	.01940	-.06963
4.500	.000	.02000	.00513
4.500	.000	.02060	-.06971
4.500	.000	.02120	.00531
4.500	.000	.02180	-.06979
4.500	.000	.02240	.00549
4.500	.000	.02300	-.06987
4.500	.000	.02360	.00567
4.500	.000	.02420	-.06995
4.500	.000	.02480	.00584
4.500	.000	.02540	-.07003
4.500	.000	.02600	.00602
4.500	.000	.02660	-.07011
4.500	.000	.02720	.00620
4.500	.000	.02780	-.07019
4.500	.000	.02840	.00638
4.500	.000	.02900	-.07027
4.500	.000	.02960	.00656
4.500	.000	.03020	-.07035
4.500	.000	.03080	.00673
4.500	.000	.03140	-.07043
4.500	.000	.03200	.00691
4.500	.000	.03260	-.07050
4.500	.000	.03320	.00709
4.500	.000	.03380	-.07058
4.500	.000	.03440	.00727
4.500	.000	.03500	-.07066
4.500	.000	.03560	.00745
4.500	.000	.03620	-.07074
4.500	.000	.03680	.00763
4.500	.000	.03740	-.07081
4.500	.000	.03800	.00780
4.500	.000	.03860	-.07089
4.500	.000	.03920	.00798
4.500	.000	.03980	-.07096
4.500	.000	.04040	.00816
4.500	.000	.04100	-.07104
4.500	.000	.04160	.00833
4.500	.000	.04220	-.07112
4.500	.000	.04280	.00851
4.500	.000	.04340	-.07119
4.500	.000	.04400	.00869
4.500	.000	.04460	-.07127
4.500	.000	.04520	.00886
4.500	.000	.04580	-.07135
4.500	.000	.04640	.00904
4.500	.000	.04700	-.07143
4.500	.000	.04760	.00921
4.500	.000	.04820	-.07150
4.500	.000	.04880	.00939
4.500	.000	.04940	-.07158
4.500	.000	.05000	.00956
4.500	.000	.05060	-.07166
4.500	.000	.05120	.00973
4.500	.000	.05180	-.07174
4.500	.000	.05240	.00990
4.500	.000	.05300	-.07182
4.500	.000	.05360	.01007
4.500	.000	.05420	-.07190
4.500	.000	.05480	.01024
4.500	.000	.05540	-.07198
4.500	.000	.05600	.01041
4.500	.000	.05660	-.07206
4.500	.000	.05720	.01058
4.500	.000	.05780	-.07214
4.500	.000	.05840	.01075
4.500	.000	.05900	-.07222
4.500	.000	.05960	.01091
4.500	.000	.06020	-.07229
4.500	.000	.06080	.01108
4.500	.000	.06140	-.07236
4.500	.000	.06200	.01125
4.500	.000	.06260	-.07243
4.500	.000	.06320	.01142
4.500	.000	.06380	-.07250
4.500	.000	.06440	.01159
4.500	.000	.06500	-.07258
4.500	.000	.06560	.01176
4.500	.000	.06620	-.07266
4.500	.000	.06680	.01193
4.500	.000	.06740	-.07273
4.500	.000	.06800	.01210
4.500	.000	.06860	-.07280
4.500	.000	.06920	.01227

DATE 29 OCT 74

AEDC VA-42211A-37, CR/ET W/BOTH SRS

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ORTLOPO ( 18 APR 74 )

## REFERENCE DATA

BDFP = 2800,0000 80,97. XDFP = 1032,0000 IN, YT  
 UDFP = 1250,0000 IN. YDFP = .0000 IN, YT  
 ZDFP = 1250,0000 IN. ZDFP = 447,0000 IN, YT  
 SCALE = .0100

## PARAMETRIC DATA

L-SGP = 2,000 R-SGP = 3,000  
 SHPGS = 2,300 RUL = 2,100  
 PT-JET = 1500,0000 BETA = .300

RUN NO. 43V 0 RUL = 1.34 GRADIENT INTERVAL = -5.00V 5.00

MACH	ALPHA	BETA	CN	CM	CV	CR	CA
4.500	-10.000	-.32709	-.03011	-.04606	.20027	.03946	.17622
4.500	-9.000	-.32750	-.02302	-.05250	.19700	.04085	.17310
4.500	-8.000	-.32524	.00426	-.05795	.18596	.04575	.16938
4.500	-7.000	-.32291	.03056	-.06306	.16941	.05196	.16326
4.500	-6.000	-.31517	.05994	-.08974	.15709	.03399	.15812
4.500	-5.000	-.30974	.08691	-.07951	.14370	.05703	.15215
4.500	-4.000	-.30580	.11661	-.08338	.13366	.06104	.14946
4.500	-3.000	-.29967	.14440	-.09125	.12263	.06469	.14350
4.500	-2.000	-.29143	.17452	-.10334	.10884	.06814	.09260
4.500	-1.000	-.28613	.20349	-.10942	.09804	.07157	.00102
4.500	.000	-.28023	.23421	-.12120	.08118	.07431	-.00046
4.500	1.000	-.28749	.26165	-.13086	.06841	.07768	.01262
4.500	2.000	-.25886	.26500	-.13070	.06282	.06059	.00262
4.500	3.000	-.25010	.25382	-.14420	.04116	.06237	-.00204
4.500	4.000	-.24357	.23372	-.15110	.03569	.06273	-.00020
4.500	5.000	-.24253	.24203	-.15769	.03152	.06426	.01026
4.500	6.000	-.24343	.26024	-.16493	.02935	.06574	.01254
4.500	7.000	-.24458	.27936	-.17053	.02635	.06691	.01453
4.500	8.000	-.24618	.28949	-.17582	.02365	.06835	.01682
4.500	9.000	-.24811	.21724	-.19331	.02234	.06916	.01891
4.500	10.000	-.25069	.23549	-.18240	.01965	.06932	.02081
	GRADIENT	.00753	.02394	-.00653	-.01222	.02279	-.00164



DATE 28 OCT 74

ADC VA-4221A-371, CLOUD WATCH SRA

REFERENCE DATA

XRP = 2000,000 SQ.FT.  
YRP = 1032,000 IN. XT  
ZRP = 1250,300 IN.  
XRP = 447,000 IN. ZT  
YRP = 1250,300 IN.  
ZRP = .0100  
SCALE =

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071077 1 28 OCT 74 )

PARAMETRIC DATA

L-250 = 2,000  
SREP = 2,000  
PT-JET = 2,000,000  
ALPHA = 3,000

PLN NO.	42/0	RNL 2	1.00	GRADIENT INTERVAL =	-3.71U 3.00
No.01	BETA	ALPHA	ON	ON	ON
4.500	-10,000	-.12793	.13104	-.09886	.28932
4.500	-9,000	-.12238	.15920	-.10174	.20543
4.500	-8,000	-.11793	.16375	-.10414	.23193
4.500	-7,000	-.11273	.17035	-.10503	.25045
4.500	-6,000	-.10874	.17710	-.10787	.18024
4.500	-5,000	-.10517	.18391	-.10988	.15330
4.500	-4,000	-.10252	.18940	-.11096	.13460
4.500	-3,000	-.09969	.19669	-.11083	.11365
4.500	-2,000	-.09632	.20442	-.11128	.10365
4.500	-1,000	-.07437	.20799	-.11225	.09221
4.500	.000	-.06950	.23022	-.10874	.07069
4.500	1,000	-.06798	.19057	-.10424	.04303
4.500	2,000	-.06914	.17698	-.09916	.01040
4.500	3,000	-.07091	.17033	-.09529	-.03227
4.500	4,000	-.06945	.16167	-.09734	-.04149
4.500	5,000	-.06525	.15776	-.09777	-.13671
4.500	6,000	-.06237	.15194	-.09264	-.20442
4.500	7,000	-.05993	.15247	-.09151	-.26538
4.500	8,000	-.05601	.15824	-.09456	-.32352
4.500	9,000	-.05336	.16995	-.09694	-.37931
4.500	10,000	-.05110	.18196	-.09846	-.43361
	GRADIENT	.0100	-.01334	-.02170	.00046

REPRODUCIBILITY OF THE  
CLOUDWATCH DATA BY THE SRA

DATE 20 OCT 74

## AEDC VA-42211A-37, CAVITY WOOTH DATA

## REFERENCE DATA

XREF	2880,0000 SQ.FT.	XRP	1032,0000 IN. YT
YREF	1250,0000 IN.	YRP	.0000 IN. YT
ZREF	1250,0000 IN.	ZRP	447,0000 IN. YT
SCALE	.0100		

DATE 18 APR 74

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## PARAMETRIC DATA

RUN NO.	S7/ S	RNL =	1.87	GRADIENT INTERVAL =	-5.00/ 5.00		CL	CL				
					ALPHA	BETA	ON	CW	CV	CIN	CL	CL
4.500	-10,000	.00068	-.25067	.06221	-.00736	.00300	.00070	.21369				
4.500	-9,000	.00068	-.26893	.08206	-.00762	.00316	.00082	.21269				
4.500	-8,000	.00068	-.24757	.07904	-.00640	.00349	.00086	.21076				
4.500	-7,000	.00035	-.22254	.07292	-.00700	.00360	.00084	.20983				
4.500	-6,000	-.00006	-.19713	.06638	-.00848	.00464	.00077	.21222				
4.500	-5,000	-.00049	-.16955	.05268	-.01104	.00345	.00069	.19563				
4.500	-4,000	-.00058	-.14326	.03086	-.01597	.00369	.00077	.19136				
4.500	-3,000	-.00069	-.11595	.01446	-.01111	.00359	.00072	.18276				
4.500	-2,000	-.00050	-.09136	.00353	-.01153	.00353	.00074	.17594				
4.500	-1,000	-.00024	-.06745	.02748	-.01155	.00360	.00055	.17253				
4.500	0,000	-.00074	-.04508	.02300	-.01190	.00363	.00066	.17247				
4.500	1,000	-.00092	-.02371	.01005	-.01336	.00354	.00062	.17612				
4.500	2,000	-.00128	.00173	.00964	-.01425	.00343	.00063	.17396				
4.500	3,000	-.00173	.02772	.00096	-.01552	.00336	.00036	.17235				
4.500	4,000	-.00199	.05351	-.00034	-.01674	.00308	.00027	.17027				
4.500	5,000	-.00180	.07841	-.01692	-.01750	.00319	.00027	.16927				
4.500	6,000	-.00169	.10257	-.01205	-.01954	.00306	.00026	.16960				
4.500	7,000	-.00166	.12549	.01034	-.02029	.00376	.00027	.16271				
4.500	8,000	-.00169	.14668	.00936	-.02047	.00367	.00024	.15964				
4.500	9,000	-.00251	.17300	-.00437	-.02384	.00354	.00027	.15716				
4.500	10,000	-.00226	.19692	-.00382	-.02106	.00369	.00026	.15682				
GRADIENT	-	.00016	.02444	-.00722	-.00724	.00044	-.00031	-.00236				

DATE 28 OCT 74

NEW YORK

REFERENCE DATA

PROJECTION DATA	
L-570	= 3,000
R-570	= 2,000
SFBP	= 3,200
RVAL	= 1,700
P1-JET	= 3,000
ALPHA	= 3,000
SCALE	= .0100
SFT	= 2890.0000 SQ.FT.
LFBP	= 1290.3000 IN.
SREF	= 1290.3000 IN.
XT	= 1032.0000 IN.
YFBP	= 5000 IN. VT
ZFBP	= 447.0000 IN. VT

THE JOURNAL

SCALE	.0100	BRIT	1250.3000 IN.	L-JET	1250.3000 IN.	SERF	2650.0000 SQ. FT.	2650.0000 SQ. FT.	2650.0000 SQ. FT.	R-SERF	1032.0000 IN. X 11	1032.0000 IN. X 11	1032.0000 IN. X 11	R-SERF	5.000	R-SERF	5.000
										PILOT	447.0000 IN. X 21	447.0000 IN. X 21	447.0000 IN. X 21	PILOT	3.200	PILOT	3.200
										ALPHA	.0100	.0100	.0100	ALPHA	.000	ALPHA	.000

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REFERENCE DATA										PARAMETRIC DATA									
SQ.FT.	ZERP	2 1052,000 IN. YT	3 1000 IN. YT	4 447,000 IN. ZT	5 1000 IN. ZT	L-352	= 3,000	R-352	= 2,500	L-352	= 3,000	R-352	= 2,500	L-352	= 3,200	R-352	= 1,700	L-352	= 3,000
1,500	-10,000	-1,13616	-0,04536	0,01254	CY	28831	CY	0,07703	0,03008	0,07703	CY	0,03008	0,07703	0,03008	0,07703	0,03008	0,07703	0,03008	
1,500	-9,000	-1,12956	-0,04710	0,01384	CD	23264	CD	0,07632	0,02444	0,07632	CD	0,02444	0,07632	0,02444	0,07632	0,02444	0,07632	0,02444	
1,500	-8,000	-1,12346	-0,04926	0,01567	CB	22096	CB	0,07611	0,02612	0,07611	CB	0,02612	0,07611	0,02612	0,07611	0,02612	0,07611	0,02612	
1,500	-7,000	-1,11706	-0,05311	0,01970	CA	18682	CA	0,07531	0,02277	0,07531	CA	0,02277	0,07531	0,02277	0,07531	0,02277	0,07531	0,02277	
1,500	-6,000	-1,11075	-0,05625	0,02270	CB	15743	CB	0,07471	0,02701	0,07471	CB	0,02701	0,07471	0,02701	0,07471	0,02701	0,07471	0,02701	
1,500	-5,000	-1,10533	-0,05973	0,02476	CD	12629	CD	0,07351	0,03288	0,07351	CD	0,03288	0,07351	0,03288	0,07351	0,03288	0,07351	0,03288	
1,500	-4,000	-1,10164	-0,06371	0,02702	CA	09476	CA	0,07252	0,03759	0,07252	CA	0,03759	0,07252	0,03759	0,07252	0,03759	0,07252	0,03759	
1,500	-3,000	-1,09634	-0,06690	0,03011	CD	05464	CD	0,07195	0,04042	0,07195	CD	0,04042	0,07195	0,04042	0,07195	0,04042	0,07195	0,04042	
1,500	-2,000	-1,09232	-0,06774	0,03094	CB	03935	CB	0,07145	0,03731	0,07145	CB	0,03731	0,07145	0,03731	0,07145	0,03731	0,07145	0,03731	
1,500	-1,000	-1,09044	-0,06432	0,02796	CD	00369	CD	0,07077	0,02025	0,07077	CD	0,02025	0,07077	0,02025	0,07077	0,02025	0,07077	0,02025	
1,500	0,000	-1,08830	-0,06387	0,02717	CA	02636	CA	0,07027	0,03084	0,07027	CA	0,03084	0,07027	0,03084	0,07027	0,03084	0,07027	0,03084	
1,500	1,000	-1,08655	-0,06655	0,02774	CD	01770	CD	0,07053	0,03417	0,07053	CD	0,03417	0,07053	0,03417	0,07053	0,03417	0,07053	0,03417	
1,500	2,000	-1,08355	-0,06843	0,03038	CA	00773	CA	0,06797	0,02659	0,06797	CA	0,02659	0,06797	0,02659	0,06797	0,02659	0,06797	0,02659	
1,500	3,000	-1,08198	-0,06535	0,03045	CB	11891	CB	0,06635	0,03033	0,06635	CB	0,03033	0,06635	0,03033	0,06635	0,03033	0,06635	0,03033	
1,500	4,000	-1,08124	-0,06527	0,03032	CD	14934	CD	0,06592	0,04050	0,06592	CD	0,04050	0,06592	0,04050	0,06592	0,04050	0,06592	0,04050	
1,500	5,000	-1,08027	-0,06396	0,02745	CA	18039	CA	0,06533	0,03216	0,06533	CA	0,03216	0,06533	0,03216	0,06533	0,03216	0,06533	0,03216	
1,500	6,000	-1,08046	-0,06472	0,03045	CB	21203	CB	0,06453	0,02449	0,06453	CB	0,02449	0,06453	0,02449	0,06453	0,02449	0,06453	0,02449	
1,500	7,000	-1,08056	-0,06596	0,03055	CD	24543	CD	0,06350	0,02544	0,06350	CD	0,02544	0,06350	0,02544	0,06350	0,02544	0,06350	0,02544	
1,500	8,000	-1,08070	-0,06750	0,03050	CA	27973	CA	0,06252	0,02640	0,06252	CA	0,02640	0,06252	0,02640	0,06252	0,02640	0,06252	0,02640	
1,500	9,000	-1,08076	-0,06824	0,03048	CB	31521	CB	0,06176	0,02732	0,06176	CB	0,02732	0,06176	0,02732	0,06176	0,02732	0,06176	0,02732	
1,500	10,000	-1,08074	-0,06954	0,03074	CD	35151	CD	0,06117	0,02847	0,06117	CD	0,02847	0,06117	0,02847	0,06117	0,02847	0,06117	0,02847	

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DATE 29 OCT 74

## AEDC VA-42211A-37, ORB/ET W/BOTH SRB

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(RTL0000) (18 APR 74)

## REFERENCE DATA

SREF = 2890,0000 SQ.FT.  
 UREF = 1290,3000 IN.  
 VREF = .0000 IN.  
 ZREF = 1290,3000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

RUN NO.	GIV 0	RVAL = 1.07	GRADIENT INTERVAL = -3.000			GIV	CV	CH	CR	CA
			ALPHA	BETA	CH					
4,5000	-10,000	.36050	-.02776	-.23995	-.03623	.01063	.17540			
4,5000	-9,000	.36039	-.02460	-.03434	-.22136	.04260	.00132	.16759		
4,5000	-8,000	.35408	-.03169	-.03908	-.29326	.04722	.00210	.16477		
4,5000	-7,000	.34972	-.02535	-.04322	-.19073	.03169	.00246	.16107		
4,5000	-6,000	.34454	-.03710	-.04610	-.17659	.03527	.00215	.15927		
4,5000	-5,000	.34353	.03946	-.03194	-.16532	.06229	.00160	.15320		
4,5000	-4,000	.34270	.08117	-.03871	-.15771	.06759	.00105	.14779		
4,5000	-3,000	.34318	.10335	-.06626	-.13694	.07264	.00024	.13993		
4,5000	-2,000	.34490	.13353	-.07638	-.13229	.07713	.00256	.13220		
4,5000	-1,000	.34318	.16094	-.08577	-.12876	.08709	.07111	.12578		
4,5000	0,000	.34673	.18657	-.09500	-.12043	.09326	.00306	.11992		
4,5000	1,000	.34466	.21233	-.10408	-.11144	.09568	.00312	.11495		
4,5000	2,000	.34157	.23766	-.11297	-.10243	.09970	.00726	.11133		
4,5000	3,000	.33590	.26140	-.12118	-.09223	.09903	.00902	.10900		
4,5000	4,000	.33263	.28302	-.12698	-.08507	.09454	.01063	.10576		
4,5000	5,000	.33069	.30312	-.13703	-.07774	.09736	.01276	.10461		
4,5000	6,000	.32955	.32727	-.14475	-.07297	.09965	.01517	.10387		
4,5000	7,000	.32746	.34807	-.15126	-.06869	.10067	.01717	.10000		
4,5000	8,000	.32435	.36754	-.15667	-.05736	.10233	.01921	.10476		
4,5000	9,000	.31975	.38953	-.16074	-.06693	.10994	.02293	.10260		
4,5000	10,000	.31462	.40467	-.16440	-.06284	.10911	.02561	.10081		
	GRADIENT	-.03122	.02517	-.00813	-.00625	.00340	.00149	-.00606		

DATE 29 OCT 74

## ADC VA-822 (LA-37), CAVET WORTH 985

## REFERENCE DATA

REF = 2000.0000 30.FT.  
 LREF = 1250.3000 IN.  
 BREF = 1250.3000 IN.  
 SCALE = .0100

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ATTACH ( 18 APR 74 )

## PARAMETRIC DATA

RUN NO.	SWL 0	RVL = 1.04	GRADIENT INTERVAL = -3.00 3.00					
MACH	BETA	ALPHA	CN	CL <sup>n</sup>	CR	CN	CL <sup>n</sup>	CA
4.500	-10.000	-0.0269	.20071	-1.025	.3266	-.23367	.06988	.19222
4.500	-9.000	-0.0270	.20227	-1.025	.27029	-.21079	.06453	.14530
4.500	-8.000	-0.0259	.19	-1.025	.09672	.21183	-.19159	.12963
4.500	-7.000	-0.0250	.19050	-1.025	.09738	.19822	-.17066	.10881
4.500	-6.000	-0.0256	.18228	-1.02419	.02296	-.15298	.02691	.13032
4.500	-5.000	-0.0251	.17574	-1.02122	.04991	-.13026	.02004	.12526
4.500	-4.000	-0.0274	.16953	-1.0202	.05000	-.11167	.01357	.12516
4.500	-3.000	-0.0226	.16229	-1.02578	.04345	-.09709	.00868	.11581
4.500	-2.000	-0.0215	.16944	-1.02503	.07997	-.08835	.00241	.11657
4.500	-1.000	-0.0203	.16356	-1.02772	.10877	-.08454	.00232	.11970
4.500	.000	-0.0237	.16109	-1.02669	.12765	-.08025	.00245	.11500
4.500	1.000	-0.0234	.16113	-1.02669	.14848	-.07393	.00232	.11322
4.500	2.000	-0.0236	.16132	-1.02793	.17213	-.07157	.00198	.11135
4.500	3.000	-0.0221	.16134	-1.02921	.19508	-.06868	.00287	.10783
4.500	4.000	-0.0210	.15777	-1.03049	.22217	-.06320	.00194	.10316
4.500	5.000	-0.0216	.15343	-1.03772	.24419	-.05027	.00203	.10322
4.500	6.000	-0.0207	.14773	-1.03559	.26453	-.05773	.00317	.10257
4.500	7.000	-0.0274	.14354	-1.03033	.29323	-.05314	.00358	.10175
4.500	8.000	-0.02637	.13621	-1.02864	.31721	-.05225	.00314	.10224
4.500	9.000	-0.02748	.12696	-1.02553	.34577	-.04790	.01201	.10503
4.500	10.000	-0.02155	.12345	-1.02354	.37444	-.02778	-.00216	-.00268
	GRADIENT		.00173		.00224			

DATE 29 OCT 74

AEDC VA-422(1A-57), CRIBET W/ BOTH 828 (WIND OFF)

REFERENCE DATA

SREF = 2000.0000 SQ.FT. XREF = 1032.0000 IN. XT  
LREF = 1200.3000 IN. YREF = .0000 IN. YT  
BREF = 1200.3000 IN. ZREF = 447.0000 IN. ZT  
SCALE = .0100

RUN NO. 44/0 TNL = 2.22 GRADIENT INTERVAL = -5.30/ 9.00

MACH	ALPHA	BETA	CN	CL	CT	CTN	CLL	CA
4.510	-10.000	.00111	-.00140	-.00011	-.00177	.00003	.00100	.17470
4.510	-9.000	.00163	.04553	-.10296	.00091	-.00143	.00169	.17731
4.510	-8.000	.00212	.08214	-.12568	.00077	-.00153	.00160	.17992
4.510	-7.000	.00196	.13697	-.14900	.00236	-.00235	.00106	.18104
4.510	-6.000	.00132	.18638	-.17145	.00288	-.00227	.00119	.17941
4.510	-5.000	.00046	.22930	-.19096	.00412	-.00256	.00088	.17756
4.510	-4.000	.00017	.25823	-.20114	.00747	-.00406	.00196	.17310
4.510	-3.000	.00104	.27341	-.20258	.01195	-.00629	.00165	.15992
4.510	-2.000	.00136	.28037	-.19821	.01239	-.00673	.00104	.14974
4.510	-1.000	.00396	.29118	-.19973	.01436	-.00956	.00113	.14270
4.510	.000	.00379	.30485	-.20163	.01097	-.00682	.00047	.14047
4.510	1.000	.00219	.32059	-.20563	.00447	-.00312	.00197	.13976
4.510	2.000	.00110	.34171	-.21218	-.00443	.00159	-.00253	.14297
4.510	3.000	.00280	.36854	-.22203	-.00857	.00209	-.00357	.14880
4.510	4.000	-.00045	.40345	-.23763	-.00115	.00054	-.00391	.15101
4.510	5.000	-.00936	.43863	-.23363	.00930	-.00156	-.00311	.15270
4.510	6.000	-.02059	.47634	-.22758	.00935	-.00251	-.00222	.15361
4.510	7.000	-.02223	.51082	-.22521	.00419	.00344	-.00279	.15367
4.510	8.000	-.02541	.54526	-.21143	.00134	.00793	-.00312	.15350
4.510	9.000	-.02899	.57933	-.20635	-.00130	.01048	-.00330	.15420
4.510	10.000	-.02956	.61393	-.20179	-.00220	.01217	-.00385	.15417
	GRADIENT	-.00044	.01875	-.00503	-.00096	.00054	-.00227	-.00234

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(INTL004) ( 16 APR 74 )

PARAMETRIC DATA

L-308	2	3.000	R-308	2	3.000
SEROS	2	3.300	PNVL	2	.000
PT-JET	2	750.000	SETA	2	.000

DATE 29 OCT 74

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## AEDC VA-422(1A-57), OB/ET W/BOTH SRS (P/P MODE)

## REFERENCE DATA

SREF = 2690,0000 SQ.FT.  
 LREF = 1290,3000 IN.  
 SREF = 1290,3000 IN.  
 SCALE = .0100

RUN NO. 11/ 0 RVAL = 1.88 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	C <sub>N</sub>	C <sub>L</sub>	C <sub>T</sub>	C <sub>N</sub>	C <sub>L</sub>	C <sub>T</sub>
4.500	-10.720	-.000085	.25386	-.22877	-.03312	.01485	-.00216	-.00350
4.500	-5.890	.00669	-.10917	-.28729	-.01760	.00434	-.00077	.00443
4.500	-.537	.01912	.00676	-.28443	-.02783	.00454	-.00175	.00619
4.500	4.553	.00570	.09126	-.26727	-.01343	.00320	-.00196	.01469
4.500	9.734	.02493	.19156	-.26396	-.01396	.00433	-.00245	.01654
GRADIENT	-.00264	.01660	-.00035	.01283	-.00023	-.00004	-.00012	

## AEDC VA-422(1A-57), OB/ET W/BOTH SRS (P/P MODE)

## REFERENCE DATA

SREF = 2690,0000 SQ.FT.  
 LREF = 1290,3000 IN.  
 SREF = 1290,3000 IN.  
 SCALE = .0100

RUN NO. 12/ 0 RVAL = 1.87 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	C <sub>N</sub>	C <sub>L</sub>	C <sub>T</sub>	C <sub>N</sub>	C <sub>L</sub>	C <sub>T</sub>
4.500	-10.034	-.60322	-.00871	-.27948	.18644	-.08210	.02085	-.00300
4.500	-5.051	-.61492	-.03620	-.27553	.06459	-.01110	.00459	-.00391
4.500	-.008	-.59009	-.00745	-.26567	-.03147	.00761	-.00259	.01367
4.500	5.066	-.49635	.00804	-.25301	-.08981	.01693	-.00766	.01592
4.500	10.112	-.46352	.02176	-.24636	-.17809	.05172	-.01751	.00431
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

## AEDC VA-422(1A-57), OB/ET W/BOTH SRS (P/P MODE)

## PARAMETRIC DATA

L-SR0 = 1.000  
 SRPOS = 1.100 RVAL = 1.000  
 PT-JET = 1500.000 BETA = .000

## AEDC VA-422(1A-57), OB/ET W/BOTH SRS (P/P MODE)

## PARAMETRIC DATA

L-SR0 = 1.000 R-SR0 = 1.000  
 SRPOS = 1.100 RVAL = 1.000  
 PT-JET = 1500.000 ALPHA = .000

## AEDC VA-422(1A-57), OB/ET W/BOTH SRS (P/P MODE)

## PARAMETRIC DATA

L-SR0 = 1.000 R-SR0 = 1.000  
 SRPOS = 1.100 RVAL = 1.000  
 PT-JET = 1500.000 ALPHA = .000

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AEDC VA-422(1A-57) , CR/ET W/ BOTH SRB (P/P MODE)

REFERENCE DATA

SREF = 2850,0000 SQ.FT.  
UREF = 1250,3000 IN.  
BREF = 1250,3000 IN.  
SCALE = .0100

RUN NO. 27/ 0 RVAL = 1.84 GRADIENT INTERVAL = -5.00V 5.00  

MACH	ALPHA	BETA	CN	CLW	CT	CN	CLB	CA
.500	-10.147	.02893	-.07682	-.0210	-.03985	.00392	-.00368	.12282
.500	-5.000	.03081	.02931	-.04620	-.02741	-.00336	.00013	.11022
4.500	-.019	.00882	.11413	-.03590	-.00357	-.00078	-.00249	.08696
4.500	5.070	.02258	.20173	-.06315	-.00735	-.00461	-.00132	.07084
4.500	10.130	.03088	.27221	-.06915	-.0091	-.00236	-.00176	.04795
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AEDC VA-422(1A-57) , CR/ET W/ BOTH SRB (P/P MODE)

REFERENCE DATA

SREF = 2850,0000 SQ.FT.  
UREF = 1250,3000 IN.  
BREF = 1250,3000 IN.  
SCALE = .0100

RUN NO. 28/ 0 RVAL = 1.84 GRADIENT INTERVAL = -5.00V 5.00  

MACH	ALPHA	BETA	CN	CLW	CT	CN	CLB	CA
4.500	-10.154	-.03090	.03046	-.03385	.27467	-.00231	.02236	.08932
4.500	-5.007	-.02573	.10598	-.03647	.19943	-.03131	.01424	.09135
4.500	.067	-.03758	.03042	-.04382	-.04886	.00043	-.00346	.08613
4.500	5.162	-.01604	.08493	-.03763	-.21334	.03445	-.002015	.08250
4.500	10.206	-.00915	.06776	-.02526	-.33193	.04363	-.002420	.08307
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

(PTL087) ( 18 APR 74 )

PARAMETRIC DATA

L-SRF = 2,000 R-SRF = 2,000  
SRBDS = 2,200 RVL = 1,760  
PT-JET = 1500,000 BETA = .0000

L-SRF = 2,000 R-SRF = 2,000  
SRBDS = 2,200 RVL = 1,760  
PT-JET = 1500,000 ALPHA = .0000

(PTL088) ( 18 APR 74 )

PARAMETRIC DATA

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ADDC VA-422(1A-57), CRVET W/BOTH SRB (P/P MODE)

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XRP = 1032.0000 IN. XT  
LREF = 1250.3000 IN. YRP = .0000 IN. YT  
SREF = 1250.3000 IN. ZRP = 447.0000 IN. ZT  
SCALE = .0100

RUN NO. 48V 0 RVAL = 1.84 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	ON	C <sub>H</sub>	C <sub>T</sub>	C <sub>N</sub>	C <sub>L</sub>	C <sub>A</sub>
4.500	-10.232	-.00266	.10436	-.13760	-.00511	.00102	.00077	.16418
4.500	-5.193	-.00307	.24316	-.18425	-.00642	.00304	.00033	.13959
4.500	-1.26	.00238	.33170	-.20800	-.00900	.00385	.00191	.12209
4.500	4.869	-.00577	.51016	-.29623	.02195	-.00653	-.00006	.13407
4.500	9.910	-.01121	.65624	-.35229	.01213	.00092	-.00341	.14249
GRADIENT	-.00163	.03571	.01765	.00211	-.00014	-.00039	.00233	

ADDC VA-422(1A-57), CRVET W/BOTH SRB (P/P MODE)

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XRP = 1032.0000 IN. XT  
LREF = 1250.3000 IN. YRP = .0000 IN. YT  
SREF = 1250.3000 IN. ZRP = 447.0000 IN. ZT  
SCALE = .0100

RUN NO. 48V 0 RVAL = 1.84 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	ON	C <sub>H</sub>	C <sub>T</sub>	C <sub>N</sub>	C <sub>L</sub>	C <sub>A</sub>
4.500	-10.095	-.17062	.29682	-.16738	.34226	-.15261	.04477	.16920
4.500	-5.006	-.15173	.31600	-.20121	.12103	-.05093	.01354	.12636
4.500	.001	-.14501	.31170	-.20131	-.00358	.00168	.00021	.11463
4.500	5.013	-.15003	.25949	-.19463	-.20730	.09776	-.02326	.14471
4.500	10.096	-.13504	.26370	-.16916	-.46380	.19450	-.03403	.16937
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	

(RTLD00) ( 16 APR 74 )

PARAMETRIC DATA

L-SUB = 3.000 R-SUB = 3.000  
SREF = 3.300 RVAL = 1.700  
PT-JET = 1500.000 BETA = .0000

(RTLD00) ( 16 APR 74 )

L-SUB = 3.000 R-SUB = 3.000  
SREF = 3.300 RVAL = 1.700  
PT-JET = 1500.000 ALPHA = .0000

(RTLD00) ( 16 APR 74 )

ADDC VA-422(1A-57), CRVET W/BOTH SRB (P/P MODE)

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DATE 29 OCT 74

AEDC VA-422(1A-57). CRUISE WRIGHT SEA

REFERENCE DATA

SREF = 8600,0000 SQ.FT. DREF = 1107,0000 IN. X5  
UREF = 12200,3000 IN. YREF = 0,0000 IN. Y5  
BREF = 12200,3000 IN. ZREF = 400,0000 IN. Z5  
SCALE = 0,1000

(1511,0000 ( 18 APR 74 )

PARAMETRIC DATA

L-SRD = ,000 R-SRD = 1,000  
SRBOD = ,100 RAVL = 1,400  
PT-JET = 1500,000 BETW = ,000

RUN NO. 7800 RAVL = 1.40 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	BETA	Q1	CLW	CY	CDN	PC1	MTL
4.500	-10,000	-161,460	-1,-14530	-0,0472	.02032	.02133	-,01129	.07617
4.500	-9,000	-160,902	-1,-14130	-0,0411	.02196	.02191	-,01109	.07691
4.500	-8,000	-160,360	-1,-13610	-0,0425	.02161	.02169	-,01082	.07593
4.500	-7,000	-159,800	-1,-13060	-0,0462	.02293	.02167	-,01103	.07166
4.500	-6,000	-157,720	-1,-12660	-0,0484	.02290	.02104	-,01100	.07082
4.500	-5,000	-153,120	-1,-12210	-0,0473	.02375	.02094	-,01070	.06994
4.500	-4,000	-157,93	-1,-11700	-0,0418	.02241	.01938	-,00967	.06849
4.500	-3,000	-162,21	-1,-11300	-0,0498	.01937	.01690	-,00949	.06695
4.500	-2,000	-162,24	-1,-10920	-0,0493	.01684	.01617	-,00722	.06692
4.500	-1,000	-163,80	-1,-10600	-0,0495	.01885	.01880	-,00644	.07038
4.500	0,000	-164,46	-1,-10340	-0,0425	.01758	.01666	-,00471	.06939
4.500	1,000	-165,91	-1,-10040	-0,0450	.01684	.01696	-,00265	.06937
4.500	2,000	-169,57	-1,-9770	-0,0494	.01644	.02017	-,00302	.06916
4.500	3,000	-204,43	-1,-9450	-0,0495	.01669	.02202	-,00202	.06763
4.500	4,000	-209,96	-1,-9070	-0,0478	.01703	.01985	-,00487	.06753
4.500	5,000	-212,20	-1,-8660	-0,0460	.01804	.01516	-,00393	.06769
4.500	6,000	-215,20	-1,-8250	-0,0460	.01578	.01884	-,00355	.06750
4.500	7,000	-219,93	-1,-7720	-0,0447	.01533	.01876	-,00346	.06847
4.500	8,000	-217,63	-1,-7220	-0,0339	.02222	.01897	-,00352	.06898
4.500	9,000	-222,13	-1,-6730	-0,03213	.02335	.01933	-,00266	.06938
4.500	10,000	-225,63	-1,-6230	-0,03072	.02420	.01976	-,00159	.06757
4.500	11,000	-234,72	-1,-5730	-0,02982	.02476	.02016	-,00159	.06757
4.500	12,000	-244,42	-1,-5230	-0,02892	.02516	.02056	-,00159	.06757
4.500	13,000	-254,72	-1,-4730	-0,02802	.02556	.02096	-,00159	.06757
4.500	14,000	-265,63	-1,-4230	-0,02712	.02596	.02136	-,00159	.06757
4.500	15,000	-277,03	-1,-3730	-0,02622	.02636	.02176	-,00159	.06757
4.500	16,000	-288,83	-1,-3230	-0,02532	.02676	.02216	-,00159	.06757
4.500	17,000	-300,03	-1,-2730	-0,02442	.02716	.02256	-,00159	.06757
4.500	18,000	-311,53	-1,-2230	-0,02352	.02756	.02296	-,00159	.06757
4.500	19,000	-323,23	-1,-1730	-0,02262	.02796	.02336	-,00159	.06757
4.500	20,000	-335,13	-1,-1230	-0,02172	.02836	.02376	-,00159	.06757
4.500	21,000	-347,23	-1,-0730	-0,02082	.02876	.02416	-,00159	.06757
4.500	22,000	-359,53	-1,-0230	-0,01992	.02916	.02456	-,00159	.06757
4.500	23,000	-372,03	1,-0730	-0,01902	.02956	.02496	-,00159	.06757
4.500	24,000	-384,63	1,-0230	-0,01812	.02996	.02536	-,00159	.06757
4.500	25,000	-400,03	1,-0730	-0,01722	.03036	.02576	-,00159	.06757
4.500	26,000	-412,63	1,-0230	-0,01632	.03076	.02616	-,00159	.06757
4.500	27,000	-425,23	1,-0730	-0,01542	.03116	.02656	-,00159	.06757
4.500	28,000	-437,83	1,-0230	-0,01452	.03156	.02696	-,00159	.06757
4.500	29,000	-450,43	1,-0730	-0,01362	.03196	.02736	-,00159	.06757
4.500	30,000	-463,03	1,-0230	-0,01272	.03236	.02776	-,00159	.06757
4.500	31,000	-475,63	1,-0730	-0,01182	.03276	.02816	-,00159	.06757
4.500	32,000	-488,23	1,-0230	-0,01092	.03316	.02856	-,00159	.06757
4.500	33,000	-500,83	1,-0730	-0,01002	.03356	.02896	-,00159	.06757
4.500	34,000	-513,43	1,-0230	-0,00912	.03396	.02936	-,00159	.06757
4.500	35,000	-526,03	1,-0730	-0,00822	.03436	.02976	-,00159	.06757
4.500	36,000	-538,63	1,-0230	-0,00732	.03476	.03016	-,00159	.06757
4.500	37,000	-551,23	1,-0730	-0,00642	.03516	.03056	-,00159	.06757
4.500	38,000	-563,83	1,-0230	-0,00552	.03556	.03096	-,00159	.06757
4.500	39,000	-576,43	1,-0730	-0,00462	.03596	.03136	-,00159	.06757
4.500	40,000	-589,03	1,-0230	-0,00372	.03636	.03176	-,00159	.06757
4.500	41,000	-601,63	1,-0730	-0,00282	.03676	.03216	-,00159	.06757
4.500	42,000	-614,23	1,-0230	-0,00192	.03716	.03256	-,00159	.06757
4.500	43,000	-626,83	1,-0730	-0,00102	.03756	.03296	-,00159	.06757
4.500	44,000	-639,43	1,-0230	-0,00012	.03796	.03336	-,00159	.06757
4.500	45,000	-652,03	1,-0730	,00988	.03836	.03376	-,00159	.06757
4.500	46,000	-664,63	1,-0230	,01888	.03876	.03416	-,00159	.06757
4.500	47,000	-677,23	1,-0730	,02788	.03916	.03456	-,00159	.06757
4.500	48,000	-689,83	1,-0230	,03688	.03956	.03496	-,00159	.06757
4.500	49,000	-702,43	1,-0730	,04588	.04006	.03536	-,00159	.06757
4.500	50,000	-715,03	1,-0230	,05488	.04046	.03576	-,00159	.06757
4.500	51,000	-727,63	1,-0730	,06388	.04086	.03616	-,00159	.06757
4.500	52,000	-740,23	1,-0230	,07288	.04126	.03656	-,00159	.06757
4.500	53,000	-752,83	1,-0730	,08188	.04166	.03696	-,00159	.06757
4.500	54,000	-765,43	1,-0230	,09088	.04206	.03736	-,00159	.06757
4.500	55,000	-778,03	1,-0730	,09988	.04246	.03776	-,00159	.06757
4.500	56,000	-790,63	1,-0230	,10888	.04286	.03816	-,00159	.06757
4.500	57,000	-803,23	1,-0730	,11788	.04326	.03856	-,00159	.06757
4.500	58,000	-815,83	1,-0230	,12688	.04366	.03896	-,00159	.06757
4.500	59,000	-828,43	1,-0730	,13588	.04406	.03936	-,00159	.06757
4.500	60,000	-841,03	1,-0230	,14488	.04446	.03976	-,00159	.06757
4.500	61,000	-853,63	1,-0730	,15388	.04486	.04016	-,00159	.06757
4.500	62,000	-866,23	1,-0230	,16288	.04526	.04056	-,00159	.06757
4.500	63,000	-878,83	1,-0730	,17188	.04566	.04096	-,00159	.06757
4.500	64,000	-891,43	1,-0230	,18088	.04606	.04136	-,00159	.06757
4.500	65,000	-904,03	1,-0730	,18988	.04646	.04176	-,00159	.06757
4.500	66,000	-916,63	1,-0230	,19888	.04686	.04216	-,00159	.06757
4.500	67,000	-929,23	1,-0730	,20788	.04726	.04256	-,00159	.06757
4.500	68,000	-941,83	1,-0230	,21688	.04766	.04296	-,00159	.06757
4.500	69,000	-954,43	1,-0730	,22588	.04806	.04336	-,00159	.06757
4.500	70,000	-967,03	1,-0230	,23488	.04846	.04376	-,00159	.06757
4.500	71,000	-979,63	1,-0730	,24388	.04886	.04416	-,00159	.06757
4.500	72,000	-992,23	1,-0230	,25288	.04926	.04456	-,00159	.06757
4.500	73,000	-1,004,83	1,-0730	,26188	.04966	.04496	-,00159	.06757
4.500	74,000	-1,017,43	1,-0230	,27088	.05006	.04536	-,00159	.06757
4.500	75,000	-1,030,03	1,-0730	,27988	.05046	.04576	-,00159	.06757
4.500	76,000	-1,042,63	1,-0230	,28888	.05086	.04616	-,00159	.06757
4.500	77,000	-1,055,23	1,-0730	,29788	.05126	.04656	-,00159	.06757
4.500	78,000	-1,067,83	1,-0230	,30688	.05166	.04696	-,00159	.06757
4.500	79,000	-1,080,43	1,-0730	,31588	.05206	.04736	-,00159	.06757
4.500	80,000	-1,093,03	1,-0230	,32488	.05246	.04776	-,00159	.06757
4.500	81,000	-1,105,63	1,-0730	,33388	.05286	.04816	-,00159	.06757
4.500	82,000	-1,118,23	1,-0230	,34288	.05326	.04856	-,00159	.06757
4.500	83,000	-1,130,83	1,-0730	,35188	.05366	.04896	-,00159	.06757
4.500	84,000	-1,143,43	1,-0230	,36088	.05406	.04936	-,00159	.06757
4.500	85,000	-1,156,03	1,-0730	,36988	.05446	.04976	-,00159	.06757
4.500	86,000	-1,168,63	1,-0230	,37888	.05486	.05016	-,00159	.06757
4.500	87,000	-1,181,23	1,-0730	,38788	.05526	.05056	-,00159	.06757
4.500	88,000	-1,193,83	1,-0230	,39688	.05566	.05096	-,00159	.06757
4.500	89,000	-1,206,43	1,-0730	,40588	.05606	.05136	-,00159	.06757
4.500	90,000	-1,219,03	1,-0230	,41488	.05646	.0517		

DATE 29 OCT 74

ADC VA-4221A-971, CRUET WEIGHT AND

REFERENCE DATA

REFP = 2000.0000 IN. 1000.0000 IN. 1100.0000 IN. 1200.0000 IN.  
LNGP = 1200.3000 IN. 1000.0000 IN. 1100.0000 IN. 1200.0000 IN.  
REFP = 1200.3000 IN. 1000.0000 IN. 1100.0000 IN. 1200.0000 IN.  
SCALE = .0100

PARAMETRIC DATA

L-SPE = .0000 SPECS = .1000 P-SPC = .0000  
PT-JET = 1300.000 ALPHA = .4000

PLAN NO. 73/0 RNL = 1.35 GROUT INTERVAL = -3.000 3.000

MACH	BETA	ALPHA	ON	CLM	CY	CRM	PCL	ML
4.500	-10.000	-31000	-1.07970	-0.9824	.01745	.01745	.00359	.00114
4.500	-9.000	-30952	-1.07950	-0.9824	.01707	.01707	.00349	.00104
4.500	-8.000	-30923	-1.07950	-0.9824	.01664	.01664	.00328	.00094
4.500	-7.000	-29373	-1.06920	-0.9828	.01677	.01677	.00314	.00091
4.500	-6.000	-29769	-1.06960	-0.9826	.01654	.01654	.00304	.00086
4.500	-5.000	-28173	-1.07250	-0.9811	.01617	.01617	.00296	.00080
4.500	-4.000	-28559	-1.07540	-0.9807	.01575	.01575	.00286	.00074
4.500	-3.000	-28137	-1.07980	-0.9802	.01525	.01525	.00273	.00068
4.500	-2.000	-27779	-1.08920	-0.9757	.01459	.01459	.00254	.00062
4.500	-1.000	-27356	-1.10000	-0.9641	.01397	.01397	.00234	.00056
4.500	0.000	-26873	-1.10200	-0.9546	.01337	.01337	.00214	.00050
4.500	1.000	-26324	-1.10510	-0.9453	.01273	.01273	.00194	.00044
4.500	2.000	-25104	-1.10910	-0.9363	.01207	.01207	.00173	.00038
4.500	3.000	-24452	-1.11200	-0.9273	.01142	.01142	.00153	.00032
4.500	4.000	-23724	-1.11500	-0.9185	.01076	.01076	.00133	.00026
4.500	5.000	-23105	-1.11750	-0.9101	.01010	.01010	.00113	.00020
4.500	6.000	-22530	-1.12050	-0.8919	.00940	.00940	.00093	.00014
4.500	7.000	-21976	-1.12350	-0.8739	.00864	.00864	.00073	.00010
4.500	8.000	-21450	-1.12650	-0.8562	.00783	.00783	.00053	.00006
4.500	9.000	-21136	-1.12950	-0.8387	.00703	.00703	.00033	.00004
4.500	10.000	-20870	-1.13250	-0.8214	.00623	.00623	.00013	.00002
4.500	11.000	-20614	-1.13550	-0.8043	.00543	.00543	.00003	.00000
4.500	12.000	-20357	-1.13850	-0.7874	.00463	.00463	.00000	.00000
4.500	13.000	-20101	-1.14150	-0.7707	.00383	.00383	.00000	.00000
4.500	14.000	-19845	-1.14450	-0.7542	.00303	.00303	.00000	.00000
4.500	15.000	-19589	-1.14750	-0.7379	.00223	.00223	.00000	.00000
4.500	16.000	-19333	-1.15050	-0.7217	.00143	.00143	.00000	.00000
4.500	17.000	-19076	-1.15350	-0.7056	.00063	.00063	.00000	.00000
4.500	18.000	-18819	-1.15650	-0.6896	.00003	.00003	.00000	.00000
4.500	19.000	-18562	-1.15950	-0.6736	.00000	.00000	.00000	.00000
4.500	20.000	-18305	-1.16250	-0.6576	.00000	.00000	.00000	.00000
4.500	21.000	-18048	-1.16550	-0.6416	.00000	.00000	.00000	.00000
4.500	22.000	-17791	-1.16850	-0.6256	.00000	.00000	.00000	.00000
4.500	23.000	-17534	-1.17150	-0.6096	.00000	.00000	.00000	.00000
4.500	24.000	-17277	-1.17450	-0.5936	.00000	.00000	.00000	.00000
4.500	25.000	-17020	-1.17750	-0.5776	.00000	.00000	.00000	.00000
4.500	26.000	-16763	-1.18050	-0.5616	.00000	.00000	.00000	.00000
4.500	27.000	-16506	-1.18350	-0.5456	.00000	.00000	.00000	.00000
4.500	28.000	-16249	-1.18650	-0.5296	.00000	.00000	.00000	.00000
4.500	29.000	-15992	-1.18950	-0.5136	.00000	.00000	.00000	.00000
4.500	30.000	-15735	-1.19250	-0.4976	.00000	.00000	.00000	.00000
4.500	31.000	-15478	-1.19550	-0.4816	.00000	.00000	.00000	.00000
4.500	32.000	-15221	-1.19850	-0.4656	.00000	.00000	.00000	.00000
4.500	33.000	-14964	-2.00150	-0.4496	.00000	.00000	.00000	.00000
4.500	34.000	-14707	-2.00450	-0.4336	.00000	.00000	.00000	.00000
4.500	35.000	-14450	-2.00750	-0.4176	.00000	.00000	.00000	.00000
4.500	36.000	-14193	-2.01050	-0.4016	.00000	.00000	.00000	.00000
4.500	37.000	-13936	-2.01350	-0.3856	.00000	.00000	.00000	.00000
4.500	38.000	-13679	-2.01650	-0.3696	.00000	.00000	.00000	.00000
4.500	39.000	-13422	-2.01950	-0.3536	.00000	.00000	.00000	.00000
4.500	40.000	-13165	-2.02250	-0.3376	.00000	.00000	.00000	.00000
4.500	41.000	-12908	-2.02550	-0.3216	.00000	.00000	.00000	.00000
4.500	42.000	-12651	-2.02850	-0.3056	.00000	.00000	.00000	.00000
4.500	43.000	-12394	-2.03150	-0.2896	.00000	.00000	.00000	.00000
4.500	44.000	-12137	-2.03450	-0.2736	.00000	.00000	.00000	.00000
4.500	45.000	-11880	-2.03750	-0.2576	.00000	.00000	.00000	.00000
4.500	46.000	-11623	-2.04050	-0.2416	.00000	.00000	.00000	.00000
4.500	47.000	-11366	-2.04350	-0.2256	.00000	.00000	.00000	.00000
4.500	48.000	-11109	-2.04650	-0.2096	.00000	.00000	.00000	.00000
4.500	49.000	-10852	-2.04950	-0.1936	.00000	.00000	.00000	.00000
4.500	50.000	-10595	-2.05250	-0.1776	.00000	.00000	.00000	.00000
4.500	51.000	-10338	-2.05550	-0.1616	.00000	.00000	.00000	.00000
4.500	52.000	-10081	-2.05850	-0.1456	.00000	.00000	.00000	.00000
4.500	53.000	-9824	-2.06150	-0.1296	.00000	.00000	.00000	.00000
4.500	54.000	-9567	-2.06450	-0.1136	.00000	.00000	.00000	.00000
4.500	55.000	-9310	-2.06750	-0.0976	.00000	.00000	.00000	.00000
4.500	56.000	-8953	-2.07050	-0.0816	.00000	.00000	.00000	.00000
4.500	57.000	-8596	-2.07350	-0.0656	.00000	.00000	.00000	.00000
4.500	58.000	-8239	-2.07650	-0.0496	.00000	.00000	.00000	.00000
4.500	59.000	-7882	-2.07950	-0.0336	.00000	.00000	.00000	.00000
4.500	60.000	-7525	-2.08250	-0.0176	.00000	.00000	.00000	.00000
4.500	61.000	-7168	-2.08550	.0056	.00000	.00000	.00000	.00000
4.500	62.000	-6811	-2.08850	.0216	.00000	.00000	.00000	.00000
4.500	63.000	-6454	-2.09150	.0376	.00000	.00000	.00000	.00000
4.500	64.000	-6197	-2.09450	.0536	.00000	.00000	.00000	.00000
4.500	65.000	-5840	-2.09750	.0696	.00000	.00000	.00000	.00000
4.500	66.000	-5483	-2.10050	.0856	.00000	.00000	.00000	.00000
4.500	67.000	-5126	-2.10350	.1016	.00000	.00000	.00000	.00000
4.500	68.000	-4769	-2.10650	.1176	.00000	.00000	.00000	.00000
4.500	69.000	-4412	-2.10950	.1336	.00000	.00000	.00000	.00000
4.500	70.000	-4055	-2.11250	.1496	.00000	.00000	.00000	.00000
4.500	71.000	-3798	-2.11550	.1656	.00000	.00000	.00000	.00000
4.500	72.000	-3441	-2.11850	.1816	.00000	.00000	.00000	.00000
4.500	73.000	-3084	-2.12150	.1976	.00000	.00000	.00000	.00000
4.500	74.000	-2727	-2.12450	.2136	.00000	.00000	.00000	.00000
4.500	75.000	-2370	-2.12750	.2296	.00000	.00000	.00000	.00000
4.500	76.000	-1913	-2.13050	.2456	.00000	.00000	.00000	.00000
4.500	77.000	-1556	-2.13350	.2616	.00000	.00000	.00000	.00000
4.500	78.000	-1200	-2.13650	.2776	.00000	.00000	.00000	.00000
4.500	79.000	-843	-2.13950	.2936	.00000	.00000	.00000	.00000
4.500	80.000	-486	-2.14250	.3096	.00000	.00000	.00000	.00000
4.500	81.000	-130	-2.14550	.3256	.00000	.00000	.00000	.00000
4.500	82.000	-100	-2.14850	.3416	.00000	.00000	.00000	.00000
4.500	83.000	-70	-2.15150	.3576	.00000	.00000	.00000	.00000
4.500	84.000	-40	-2.15450	.3736	.00000	.00000	.00000	.00000
4.500	85.000	-10	-2.15750	.3896	.00000	.00000	.00000	.00000
4.500	86.000	-1	-2.16050	.4056	.00000	.00000	.00000	.00000
4.500	87.000	-100	-2.16350	.4216	.00000	.00000	.00000	.00000
4.500	88.000	-190	-2.16650	.4376	.00000	.00000	.00000	.00000
4.500	89.000	-280	-2.16950	.4536	.00000	.00000	.00000	.00000
4.500	90.000	-370	-2.17250	.4696	.00000	.00000	.00000	.00000
4.500	91.000	-460	-2.17550	.4856	.00000	.00000	.00000	.00000
4.500	92.000	-550	-2.17850	.5016	.00000	.00000	.00000	.00000
4.500	93.000	-640	-2.18150	.5176	.00000	.00000	.00000	.00000
4.500	94.000	-730	-2.18450	.5336	.00000	.00000	.00000	.00000
4.500	95.000	-820	-2.18750	.5496	.00000	.00000	.0	

DATE 29 OCT 74

## AEDC VA-42211A-57. CRIVET WRIGHT 500

## REFERENCE DATA

XRP = 2800.000 80. RT.  
 YRP = 1167.000 11N. 1S  
 ZRP = .0000 1N. YS  
 BREP = 1250.3000 IN.  
 SREP = 1250.3000 IN.  
 SCALE = .0100

Run No. 0000 Rev. 0 Rev. 1 = 1.00

GRADIENT INTERVAL = -3.00 3.00

MACH	ALPHA	BETA	ON	CX	CY	CZ	CIN	PCX	PCY	PCZ
4.500	-10.000	.02800	-.07332	-.01027	.02455		.00692	-.00402		.23211
4.500	-9.000	.02722	-.06629	-.00692	.02173		.00565	-.00390		.22702
4.500	-8.000	.02635	-.05953	-.00736	.01859		.00493	-.00374		.22384
4.500	-7.000	.02559	-.05274	-.00614	.01560		.00440	-.00355		.21428
4.500	-6.000	.02487	-.04612	-.00491	.01296		.00389	-.00333		.20625
4.500	-5.000	.02398	-.03926	-.00380	.00930		.00310	-.00310		.20271
4.500	-4.000	.02367	-.03323	-.00247	.00437		.00291	-.00276		.19827
4.500	-3.000	.02380	-.02750	-.00135	.00020		.00449	-.00259		.19203
4.500	-2.000	.02452	-.02161	-.00034	-.00443		.00532	-.00234		.18458
4.500	-1.000	.02504	-.01621	.00092	-.00617		.00633	-.00191		.17950
4.500	.000	.02564	-.01261	.00226	-.01104		.00736	-.00151		.17520
4.500	1.000	.02696	-.00862	.00363	-.01269		.00793	-.00109		.17191
4.500	2.000	.02811	-.00445	.00491	-.01153		.00831	-.00073		.16929
4.500	3.000	.02903	-.00031	.00587	-.00952		.00818	-.00041		.16647
4.500	4.000	.03028	.00346	.00679	-.00923		.00767	-.00039		.16303
4.500	5.000	.03235	.01100	.01774	-.00249		.00727	-.00069		.15938
4.500	6.000	.03493	.01686	.00690	.00061		.00721	.00121		.15550
4.500	7.000	.03732	.02257	.00991	.00344		.00715	.00168		.15211
4.500	8.000	.03898	.03104	.01086	.00722		.00713	.00232		.14924
4.500	9.000	.04067	.03790	.01227	.00976		.00749	.00369		.14673
4.500	10.000	.04261	.04621	.01311	.01256		.00767	.00391		.14462
	GRADIENT	.00003	.00003	.00116	-.00130		.00046	.00037		.00417

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(18 APR 74)

## PARAMETRIC DATA

L-SRP	R-SRP	R/L	BETA
.000	.000	.000	.000

DATE 29 OCT 74

ADC VA-422(1A-37) CRUISE WEIGHT 300

REFERENCE DATA

SPDP = 2800.0000 30.FT. XDP = 1167.0000 IN. YDP =  
UDP = 1250.3000 IN. ZDP = .0000 IN. Y3  
BDP = 1250.3000 IN. ZDP = 400.0000 IN. Z3  
SCALE = .0100

RUN NO. TO/D RPL = 1.05 GRADIENT INTERVAL = -.5.3V 5.00

RUN NO.	BETA	ALPHA	CN	CM	CV	CN	CM	CV	HTL
4.500	-15.000	-13684	.00135	.00479	.00069	.00874	.03359	.19620	
4.500	-9.000	-13104	.00094	.00499	.00091	.00973	.02937	.19533	
4.500	-6.000	-12575	.00022	.00452	.00032	.00970	.02593	.19341	
4.500	-7.000	-12020	.00146	.00412	.00319	.00950	.02175	.18694	
4.500	-6.000	-11494	.00334	.00347	.00370	.00803	.01609	.18423	
4.500	-5.000	-11051	.00356	.00268	.00161	.00622	.01447	.18132	
4.500	-4.000	-10520	.00689	.00198	.00029	.00623	.01092	.17845	
4.500	-3.000	-10066	.00841	.00104	.00321	.00635	.00737	.17571	
4.500	-2.000	-95694	.01074	.000702	.00385	.00580	.00424	.17390	
4.500	-1.000	-90309	.01315	.00091	.00602	.00693	.00349	.17340	
4.500	.000	.00975	.01515	.00145	.00692	.00676	.00304	.17394	
4.500	1.000	.00704	.01715	.00192	.01179	.00681	.00632	.17320	
4.500	2.000	.00487	.01938	.00257	.01469	.00677	.01036	.17524	
4.500	3.000	.00311	.02134	.00331	.01696	.00700	.01316	.17765	
4.500	4.000	.00283	.02399	.00450	.02019	.00713	.01607	.17738	
4.500	5.000	.00211	.02643	.00169	.02282	.00713	.01907	.17723	
4.500	6.000	.00191	.02954	.00699	.02491	.00726	.02232	.17769	
4.500	7.000	.00260	.03222	.00797	.02563	.00701	.02386	.17944	
4.500	8.000	.00277	.03311	.00903	.02661	.00728	.02598	.18120	
4.500	9.000	.00306	.03609	.01002	.03100	.00734	.03390	.18299	
4.500	10.000	.00451	.04103	.01112	.03332	.00773	.03694	.18573	
	GRADIENT	.00286	.00216	.00079	.00259	.00009	.00040	-.00014	

REFERENCE DATA

(151010) (15 APR 74)

PARAMETRIC DATA

L-300 = .000 R-300 = 1.000  
S-300 = .100 R-100 = 1.760  
PI-JET = .000 ALPHA = .000

DATE 29 OCT 74

## AEDC VA-42211.-57. ORBIT WRIGHT SRS

## REFERENCE DATA

STEP = 2650.0000 90.FT. XRP = 1167.0000 IN. X5  
 LREF = 1250.3000 IN. YRP = .0000 IN. Y5  
 BREF = 1250.3000 IN. ZRP = 400.0000 IN. Z5  
 SCALE = .0100

RUN ID. 72/0 RVAL = 1.00

	GRADIENT INTERVAL = -5.00	-5.00	5.00
MACH	ALPHA	BETA	ON
4.500	-10.000	.10079	-.50424
4.500	-9.000	.10159	-.49927
4.500	-8.000	.10239	-.49372
4.500	-7.000	.10369	-.48834
4.500	-6.000	.10569	-.48269
4.500	-5.000	.10591	-.47755
4.500	-4.000	.10521	-.47377
4.500	-3.000	.10224	-.46950
4.500	-2.000	.10223	-.46579
4.500	-1.000	.10432	-.46035
4.500	.000	.10764	-.45577
4.500	1.000	.10886	-.45301
4.500	2.000	.10972	-.44944
4.500	3.000	.11180	-.44555
4.500	4.000	.11552	-.44129
4.500	5.000	.11691	-.43544
4.500	6.000	.11372	-.43069
4.500	7.000	.11517	-.42807
4.500	8.000	.11750	-.42510
4.500	9.000	.11699	-.41472
4.500	10.000	.12170	-.40844
GRADIENT	.00136	.00410	.00098

	L-SPE	R-SPE	SPEPOS	RVAL	POL	MTL
PT-JET	=	.000	.100	=	.01102	.12214
PT-JET	=	.750.000	.000	.01151	.01024	.11950
PT-JET	=	.750.000	.000	.01117	.00950	.11683
PT-JET	=	.750.000	.000	.01089	.00890	.11418
PT-JET	=	.750.000	.000	.01059	.00845	.11122
PT-JET	=	.750.000	.000	.01031	.00868	.10672
PT-JET	=	.750.000	.000	.01006	.00816	.10368
PT-JET	=	.750.000	.000	.01035	.00735	.10236
PT-JET	=	.750.000	.000	.01033	.00693	.09954
PT-JET	=	.750.000	.000	.01037	.00638	.09593
PT-JET	=	.750.000	.000	.01101	.00585	.09534
PT-JET	=	.750.000	.000	.01098	.00523	.09323
PT-JET	=	.750.000	.000	.01043	.00703	.09337
PT-JET	=	.750.000	.000	.01026	.00723	.09251
PT-JET	=	.750.000	.000	.01039	.00757	.09239
PT-JET	=	.750.000	.000	.01345	.00568	.08522
PT-JET	=	.750.000	.000	.01423	.00508	.08550
PT-JET	=	.750.000	.000	.01453	.00408	.08593
PT-JET	=	.750.000	.000	.01468	.00310	.08604
PT-JET	=	.750.000	.000	.01595	.00244	.08770
PT-JET	=	.750.000	.000	.01620	.00162	.08805
PT-JET	=	.750.000	.000	.00013	.00018	.00151

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(STL011) ( 16 APR 74 )

## PARAMETRIC DATA

REFERENCE DATA

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PARAMETRIC DATA

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卷之三

Run No.	T <sub>1</sub> / 0		T <sub>2</sub> / 0		GRADIENT INTERVAL = 1.05		GRADIENT INTERVAL = -1.05		P <sub>0</sub>	
	BETA	ALPHA	ON	OFF	C <sub>1</sub>	C <sub>2</sub>	ON	OFF	C <sub>1</sub>	C <sub>2</sub>
MACH										
4.500	-10.000	-	.23778	-.44568	-.01940	.25286	.00794	.00794	.00794	.00794
4.500	-9.000	-	.22935	-.44730	-.01934	.25303	.00777	.00777	.00777	.00777
4.500	-8.000	-	.22184	-.44909	-.01936	.25476	.00763	.00763	.00763	.00763
4.500	-7.000	-	.21394	-.45029	-.01939	.25491	.00714	.00714	.00714	.00714
4.500	-6.000	-	.20882	-.45173	-.01939	.25453	.00886	.00886	.00886	.00886
4.500	-5.000	-	.20067	-.45383	-.01934	.25420	.00917	.00917	.00917	.00917
4.500	-4.000	-	.19332	-.45394	-.01863	.25327	.00535	.00535	.00535	.00535
4.500	-3.000	-	.18640	-.45039	-.01810	.25338	.00891	.00891	.00891	.00891
4.500	-2.000	-	.17956	-.45860	-.01693	.25124	.00460	.00460	.00460	.00460
4.500	-1.000	-	.17487	-.46079	-.01503	.24948	.21074	.21074	.21074	.21074
4.500	.000	-	.17223	-.46212	-.01347	.24776	.01124	.01124	.01124	.01124
4.500	1.000	-	.16898	-.46287	-.01356	.24753	.01172	.01172	.01172	.01172
4.500	2.000	-	.16339	-.46386	-.01316	.24184	.01163	.01163	.01163	.01163
4.500	3.000	-	.16130	-.46577	-.01366	.23932	.01220	.01220	.01220	.01220
4.500	4.000	-	.16151	-.46793	-.01392	.23689	.01282	.01282	.01282	.01282
4.500	5.000	-	.16076	-.47027	-.01426	.23430	.01313	.01313	.01313	.01313
4.500	6.000	-	.15995	-.47333	-.01466	.23185	.01350	.01350	.01350	.01350
4.500	7.000	-	.16012	-.47347	-.01401	.22977	.01338	.01338	.01338	.01338
4.500	8.000	-	.15932	-.47727	-.01333	.22770	.01337	.01337	.01337	.01337
4.500	9.000	-	.15771	-.47931	-.00979	.22532	.01343	.01343	.01343	.01343
4.500	10.000	-	.15633	-.48116	-.00870	.22335	.01370	.01370	.01370	.01370

DATE 28 OCT 74

## EDC VA-422(IA-57), CRVET WEIGHT 82

(87L-013) (18 APR 74)

## REFERENCE DATA

REF = 2690.0000 59.171.  
 UREF = 1250.3000 1N.  
 GREF = 1250.3000 1N.  
 SCALE = .0100.

## PARAMETRIC DATA

	L-STB	R-STB	R-SUB	R-VL	R-VL	R-VTA	R-VTA
SRPOS	= .000	= .000	= .000	= .000	= .000	= .000	= .000
PT-JET	= 1500.000						

RUN NO.	73V 0	RVL = 1.98	GRADIENT INTERVAL = -5.00	-5.00	5.00
MACH	ALPHA	BETA	ON	OFF	
4.500	-10.000	.15876	-.93843	-.03791	.00208
4.500	-9.000	.15436	-.93535	-.03606	.00223
4.500	-8.000	.15190	-.92919	-.03696	.00210
4.500	-7.000	.15226	-.92226	-.03817	.00203
4.500	-6.000	.15594	-.91628	-.03744	.00144
4.500	-5.000	.15953	-.91043	-.03595	.00142
4.500	-4.000	.16522	-.90593	-.03640	.00206
4.500	-3.000	.17185	-.90260	-.03570	.00279
4.500	-2.000	.17798	-.90016	-.03694	.00266
4.500	-1.000	.18449	-.89770	-.03595	.00084
4.500	.000	.19173	-.89493	-.03292	.00798
4.500	1.000	.19507	-.89216	-.03232	.00752
4.500	2.000	.20359	-.88993	-.03198	.00735
4.500	3.000	.2092	-.88508	-.03129	.00747
4.500	4.000	.21623	-.88031	-.03038	.00788
4.500	5.000	.22263	-.87627	-.02945	.00818
4.500	6.000	.22905	-.87153	-.02898	.00891
4.500	7.000	.23546	-.86665	-.02773	.00934
4.500	8.000	.22976	-.86161	-.02693	.00969
4.500	9.000	.23446	-.85620	-.02556	.01020
4.500	10.000	.23743	-.85076	-.02379	.01046
GADIENT		.00633	.00321	-.00037	.00022
			.00073		-.00096

DATE 28 OCT 74

AFDC VA-42211A-37, CRIVET WRIGHT 508

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## REFERENCE DATA

SREF =	2000.0000 SQ.FT.	XREF =	1167.0000 IN. X5
UREF =	1250.3000 IN.	YREF =	.0000 IN. Y5
BREF =	1250.3000 IN.	ZREF =	400.0000 1½, Z5
SCALE =	.0100		

## PARAMETRIC DATA

RUN NO.	TAU 0	RNL =	1.00	GRADIENT INTERVAL = -3.00 3.00			
				BETA	ALPHA	CH	CL
1	-10.000	-.72356	-.86904	-.03952	.49615	.01363	.51164
2	-9.500	-.32120	-.87030	-.03920	.49610	.01323	.50337
3	-9.000	-.31457	-.87312	-.03940	.49619	.01320	.50676
4	-7.000	-.50782	-.87639	-.03951	.49771	.01341	.50576
5	-6.000	-.30159	-.87962	-.03965	.49791	.01360	.50225
6	-5.000	-.29525	-.88176	-.03991	.49700	.01369	.50787
7	-4.000	-.26986	-.88254	-.03407	.49884	.01437	.50306
8	-3.000	-.26369	-.88392	-.03356	.49476	.01460	.50196
9	-2.000	-.26169	-.88392	-.03355	.49351	.01513	.50703
10	-1.000	-.26038	-.88340	-.03394	.49359	.01607	.51103
11	.000	-.27396	-.88708	-.03358	.49139	.01668	.51232
12	1.000	-.26716	-.88903	-.03351	.49211	.01753	.51426
13	2.000	-.26146	-.89091	-.03306	.49354	.01802	.51639
14	3.000	-.25557	-.89307	-.03270	.49346	.01849	.51627
15	4.000	-.24994	-.89479	-.03226	.49336	.01891	.51623
16	5.000	-.24472	-.89553	-.03104	.47601	.01970	.52082
17	6.000	-.24039	-.90129	-.02937	.47227	.02072	.52523
18	7.000	-.23567	-.90352	-.02806	.46947	.02118	.52526
19	8.000	-.23170	-.90586	-.02716	.46893	.02138	.52532
20	9.000	-.22843	-.91077	-.02680	.46490	.02102	.52696
21	10.000	-.22639	-.91206	-.02709	.46253	.02205	.52633
GRADIENT		.00496	.00156	.00022	-.00255	.00060	-.00139

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DATE 28 OCT 74

## AEDC VA-422(1A-57), GRIFFET WRIGHT 500

## REFERENCE DATA

XREF = 2800,000.000 50.FT.  
 YREF = 1250,300. TN.  
 ZREF = 1250,300. TN.  
 SCALE = .01000

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BTLO135 (18 APR 74)

## PARAMETRIC DATA

XREF = 2800,000.000 50.FT.  
 YREF = 1250,300. TN.  
 ZREF = 1250,300. TN.  
 SCALE = .01000

RAN NO. 08/0 RFL = 1.50 GRADIENT INTERVAL = -5.00 5.00

WACH	ALPHA	BETA	CH	CH	CH	CH	CH	POL	MTL
4.500	-10,000	.31721	-1.10000	-.00023	.67134	.04536	-.01253	.13982	
4.500	-9,000	.32473	-1.10310	-.00465	.67137	.04477	-.01248	.13767	
4.500	-8,000	.33268	-1.10500	-.00883	.67136	.04416	-.01245	.13459	
4.500	-7,000	.33669	-1.10650	-.00304	.67296	.04322	-.01253	.13183	
4.500	-6,000	.33514	-1.10410	-.00163	.66879	.04283	-.01276	.12800	
4.500	-5,000	.33026	-1.10500	-.00356	.66552	.04224	-.01312	.12426	
4.500	-4,000	.32377	-1.10430	-.00500	.66212	.04206	-.01333	.12017	
4.500	-3,000	.31910	-1.10580	-.00749	.65956	.04232	-.01449	.12297	
4.500	-2,000	.31644	-1.10470	-.00531	.65797	.04279	-.01531	.12986	
4.500	-1,000	.31388	-1.10440	-.00276	.65710	.04322	-.01601	.12451	
4.500	.000	.31301	-1.10220	-.00595	.65744	.04338	-.01647	.12223	
4.500	1,000	.31169	-1.10370	-.00643	.65860	.04296	-.01682	.11563	
4.500	2,000	.31113	-1.10350	-.00632	.65237	.04092	-.01729	.11254	
4.500	3,000	.31059	-1.10310	-.00498	.65526	.03863	-.01738	.10796	
4.500	4,000	.30942	-1.10290	-.00331	.67053	.03716	-.01744	.10379	
4.500	5,000	.30753	-1.10210	-.01651	.67493	.03553	-.01780	.10216	
4.500	6,000	.30579	-1.10150	-.00600	.67359	.03419	-.01778	.09673	
4.500	7,000	.30420	-1.10160	-.00592	.66521	.03253	-.01722	.09695	
4.500	8,000	.29777	-1.10300	-.00357	.65945	.03102	-.01654	.09443	
4.500	9,000	.29244	-1.10270	-.00396	.65469	.02969	-.01542	.09240	
4.500	10,000	.28650	-1.10290	-.00436	.65742	.02895	-.01441	.08950	
6ADJNT	-.00192	.00395	.00167	.00100	-.00052	-.00046	-.00025		

DATE 20 OCT 74

ANALYST VA-42211A-37, GORDON WALTERS

REFERENCE DATA

BET = 2000.0000 SR, PT.  
YHSP = 1167.0000 IN.  
YHDF = 1250.3000 IN.  
ZDFP = 1000.0000 IN.  
SCALE = .0100

RUN NO. 87/0 RFL = 1.31 GRADIENT INTERVAL = -3.000 5.000

PARAMETRIC DATA

L-588 =  
SOPRO =  
PT-JET =  
1500.000 ALPHA =  
1.000

MACH	BETA	ALPHA	Q	CD	CF	CDL	CFL	WTL
4.500	-10.050	-0.08065	-1.12360	-0.06668	.71223	.03398	.02289	.13586
4.500	-9.000	-0.04450	-1.13360	-0.06015	.71346	.03569	.01993	.13577
4.500	-8.000	-0.03245	-1.13720	-0.05815	.71321	.03500	.01363	.13527
4.500	-7.000	-0.03035	-1.14170	-0.05665	.71158	.03625	.007617	.13527
4.500	-6.000	-0.02825	-1.14610	-0.05511	.70798	.04830	.00253	.13525
4.500	-5.000	-0.02615	-1.14750	-0.05362	.70337	.04804	.00163	.11340
4.500	-4.000	-0.02405	-1.14740	-0.051748	.69339	.04777	.00063	.11220
4.500	-3.000	-0.02195	-1.14560	-0.04986	.68069	.04726	.00011	.11111
4.500	-2.000	-0.01985	-1.14520	-0.04815	.67104	.04683	.00032	.11112
4.500	3.000	-0.01775	-1.14510	-0.04679	.66577	.04639	.00022	.11112
4.500	4.000	-0.01565	-1.14500	-0.04532	.66182	.04591	.00022	.11122
4.500	5.000	-0.01355	-1.14490	-0.04385	.65731	.04551	.00022	.11122
4.500	6.000	-0.01145	-1.14480	-0.04238	.65170	.04510	.00022	.11122
4.500	7.000	-0.00935	-1.14470	-0.04091	.64632	.04472	.00022	.11122
4.500	8.000	-0.00725	-1.14460	-0.03944	.64174	.04433	.00022	.11122
4.500	9.000	-0.00515	-1.14450	-0.03797	.63716	.04394	.00022	.11122
4.500	10.000	-0.00305	-1.14440	-0.03650	.63258	.04355	.00022	.11122
4.500	11.000	-0.00095	-1.14430	-0.03503	.62800	.04316	.00022	.11122
4.500	12.000	.00105	-1.14420	-0.03356	.62342	.04277	.00022	.11122
4.500	13.000	.00295	-1.14410	-0.03209	.61884	.04238	.00022	.11122
4.500	14.000	.00485	-1.14400	-0.03062	.61426	.04199	.00022	.11122
4.500	15.000	.00675	-1.14390	-0.02915	.60968	.04160	.00022	.11122
4.500	16.000	.00865	-1.14380	-0.02768	.60510	.04121	.00022	.11122
4.500	17.000	.01055	-1.14370	-0.02621	.59952	.04082	.00022	.11122
4.500	18.000	.01245	-1.14360	-0.02474	.59494	.04043	.00022	.11122
4.500	19.000	.01435	-1.14350	-0.02327	.58936	.04004	.00022	.11122
4.500	20.000	.01625	-1.14340	-0.02180	.58478	.03965	.00022	.11122
4.500	21.000	.01815	-1.14330	-0.02033	.57920	.03926	.00022	.11122
4.500	22.000	.01995	-1.14320	-0.01886	.57462	.03887	.00022	.11122
4.500	23.000	.02185	-1.14310	-0.01739	.56904	.03848	.00022	.11122
4.500	24.000	.02375	-1.14300	-0.01592	.56446	.03809	.00022	.11122
4.500	25.000	.02565	-1.14290	-0.01445	.55888	.03770	.00022	.11122
4.500	26.000	.02755	-1.14280	-0.01298	.55430	.03731	.00022	.11122
4.500	27.000	.02945	-1.14270	-0.01151	.54972	.03692	.00022	.11122
4.500	28.000	.03135	-1.14260	-0.00994	.54514	.03653	.00022	.11122
4.500	29.000	.03325	-1.14250	-0.00847	.54056	.03614	.00022	.11122
4.500	30.000	.03515	-1.14240	-0.00699	.53598	.03575	.00022	.11122
4.500	31.000	.03705	-1.14230	-0.00552	.53140	.03536	.00022	.11122
4.500	32.000	.03895	-1.14220	-0.00405	.52682	.03497	.00022	.11122
4.500	33.000	.04085	-1.14210	-0.00258	.52224	.03458	.00022	.11122
4.500	34.000	.04275	-1.14200	-0.00111	.51766	.03419	.00022	.11122
4.500	35.000	.04465	-1.14190	-.00064	.51308	.03380	.00022	.11122
4.500	36.000	.04655	-1.14180	-.00017	.50850	.03341	.00022	.11122
4.500	37.000	.04845	-1.14170	-.00060	.50392	.03302	.00022	.11122
4.500	38.000	.05035	-1.14160	-.00113	.49934	.03263	.00022	.11122
4.500	39.000	.05225	-1.14150	-.00166	.49476	.03224	.00022	.11122
4.500	40.000	.05415	-1.14140	-.00219	.48918	.03185	.00022	.11122
4.500	41.000	.05605	-1.14130	-.00272	.48460	.03146	.00022	.11122
4.500	42.000	.05795	-1.14120	-.00325	.47992	.03107	.00022	.11122
4.500	43.000	.05985	-1.14110	-.00378	.47534	.03068	.00022	.11122
4.500	44.000	.06175	-1.14100	-.00431	.47076	.03029	.00022	.11122
4.500	45.000	.06365	-1.14090	-.00484	.46618	.03090	.00022	.11122
4.500	46.000	.06555	-1.14080	-.00537	.46160	.03051	.00022	.11122
4.500	47.000	.06745	-1.14070	-.00590	.45702	.03012	.00022	.11122
4.500	48.000	.06935	-1.14060	-.00643	.45244	.02973	.00022	.11122
4.500	49.000	.07125	-1.14050	-.00696	.44786	.02934	.00022	.11122
4.500	50.000	.07315	-1.14040	-.00749	.44328	.02895	.00022	.11122
4.500	51.000	.07505	-1.14030	-.00802	.43870	.02856	.00022	.11122
4.500	52.000	.07695	-1.14020	-.00855	.43412	.02817	.00022	.11122
4.500	53.000	.07885	-1.14010	-.00908	.42954	.02778	.00022	.11122
4.500	54.000	.08075	-1.14000	-.00961	.42496	.02739	.00022	.11122
4.500	55.000	.08265	-1.13990	-.01014	.42038	.02699	.00022	.11122
4.500	56.000	.08455	-1.13980	-.01067	.41580	.02660	.00022	.11122
4.500	57.000	.08645	-1.13970	-.01120	.41122	.02621	.00022	.11122
4.500	58.000	.08835	-1.13960	-.01173	.40664	.02582	.00022	.11122
4.500	59.000	.09025	-1.13950	-.01226	.40206	.02543	.00022	.11122
4.500	60.000	.09215	-1.13940	-.01279	.39748	.02504	.00022	.11122
4.500	61.000	.09405	-1.13930	-.01332	.39290	.02465	.00022	.11122
4.500	62.000	.09595	-1.13920	-.01385	.38832	.02426	.00022	.11122
4.500	63.000	.09785	-1.13910	-.01438	.38374	.02387	.00022	.11122
4.500	64.000	.09975	-1.13900	-.01491	.37916	.02348	.00022	.11122
4.500	65.000	.01165	-1.13890	-.01544	.37458	.02309	.00022	.11122
4.500	66.000	.01355	-1.13880	-.01597	.36999	.02270	.00022	.11122
4.500	67.000	.01545	-1.13870	-.01650	.36541	.02231	.00022	.11122
4.500	68.000	.01735	-1.13860	-.01703	.36083	.02192	.00022	.11122
4.500	69.000	.01925	-1.13850	-.01756	.35625	.02153	.00022	.11122
4.500	70.000	.02115	-1.13840	-.01809	.35167	.02114	.00022	.11122
4.500	71.000	.02305	-1.13830	-.01862	.34709	.02075	.00022	.11122
4.500	72.000	.02495	-1.13820	-.01915	.34251	.02036	.00022	.11122
4.500	73.000	.02685	-1.13810	-.01968	.33793	.02097	.00022	.11122
4.500	74.000	.02875	-1.13800	-.02021	.33335	.02058	.00022	.11122
4.500	75.000	.03065	-1.13790	-.02074	.32877	.02019	.00022	.11122
4.500	76.000	.03255	-1.13780	-.02127	.32419	.01980	.00022	.11122
4.500	77.000	.03445	-1.13770	-.02180	.31961	.01941	.00022	.11122
4.500	78.000	.03635	-1.13760	-.02233	.31503	.01902	.00022	.11122
4.500	79.000	.03825	-1.13750	-.02286	.31045	.01863	.00022	.11122
4.500	80.000	.04015	-1.13740	-.02339	.30587	.01824	.00022	.11122
4.500	81.000	.04205	-1.13730	-.02392	.30129	.01785	.00022	.11122
4.500	82.000	.04395	-1.13720	-.02445	.29671	.01746	.00022	.11122
4.500	83.000	.04585	-1.13710	-.02498	.29213	.01707	.00022	.11122
4.500	84.000	.04775	-1.13700	-.02551	.28755	.01668	.00022	.11122
4.500	85.000	.04965	-1.13690	-.02604	.28297	.01629	.00022	.11122
4.500	86.000	.05155	-1.13680	-.02657	.27839	.01589	.00022	.11122
4.500	87.000	.05345	-1.13670	-.02710	.27381	.01550	.00022	.11122
4.500	88.000	.05535	-1.13660	-.02763	.26923	.01511	.00022	.11122
4.500	89.000	.05725	-1.13650	-.02816	.26465	.01472	.00022	.11122
4.500	90.000	.05915	-1.13640	-.02869	.25997	.01433	.00022	.11122
4.500	91.000	.06105	-1.13630	-.02922	.25539	.01394	.00022	.11122
4.500	92.000	.06295	-1.13620	-.02975	.25081	.01355	.00022	.11122
4.500	93.000	.06485	-1.13610	-.03028	.24623	.01316	.00022	.11122
4.500	94.000	.06675	-1.13600	-.03081	.24165	.01276	.00022	.11122
4.500	95.000	.06865	-1.13590	-.03134	.23707	.01237	.00022	.11122
4.500	96.000	.07055	-1.13					

DATE 29 OCT 74

AEDC VA-422(IA-97) - CRVET WRIGHT S&amp;B

## REFERENCE DATA

SREF	=	2890.0000 SQ.FT.	XRP	=	1167.0000 IN. X5
UREF	=	1250.3000 IN.	YRP	=	.0030 IN. Y5
SREF	=	1221.3000 IN.	ZRP	=	400.0000 IN. Z5
SCALE	=	.0100			

(81017) (18 APR 74)

## PARAMETRIC DATA

RUN NO.	SL/D	RVAL = 1.80	GRADIENT INTERVAL = -5.00	5.00	C <sup>1</sup>	C <sup>2</sup>	C <sup>3</sup>	C <sup>4</sup>	PCL	PCL	MTL
MACH	ALPHA	BETA	ON	OFF							
4.500	-10.000	.04321	-.10385	-.03081	.03722	.01226	.00085	.01226	.00085	.00085	.2568
4.500	-9.000	.03857	-.09410	-.03065	.03716	.01134	.00097	.01134	.00097	.00097	.23047
4.500	-8.000	.03434	-.08403	-.03713	.03643	.01038	.00093	.01038	.00093	.00093	.22938
4.500	-7.000	.02973	-.07425	-.00724	.03541	.00949	.00086	.00949	.00086	.00086	.21929
4.500	-6.000	.02498	-.06502	-.00711	.03510	.00859	.00084	.00859	.00084	.00084	.21357
4.500	-5.000	.02047	-.05638	-.00659	.03509	.00760	.00083	.00760	.00083	.00083	.20754
4.500	-4.000	.01616	-.04836	-.00638	.03477	.00674	.00082	.00674	.00082	.00082	.20116
4.500	-3.000	.01169	-.04160	-.00573	.03357	.00591	.00081	.00591	.00081	.00081	.19471
4.500	-2.000	.00753	-.03542	-.00504	.03286	.00530	.00085	.00530	.00085	.00085	.18915
4.500	-1.000	.00310	-.02913	-.00400	.03216	.00514	.00090	.00514	.00090	.00090	.18394
4.500	.000	-.00134	-.02272	-.00374	.03160	.00495	.00085	.00495	.00085	.00085	.17973
4.500	1.000	-.00565	-.01616	-.00326	.03143	.00485	.00085	.00485	.00085	.00085	.17644
4.500	2.000	-.01066	-.01031	-.00226	.03136	.00476	.00085	.00476	.00085	.00085	.17384
4.500	3.000	-.01535	-.00522	-.01100	.03127	.00465	.00085	.00465	.00085	.00085	.17202
4.500	4.000	-.01987	-.00261	-.00114	.03114	.00455	.00085	.00455	.00085	.00085	.17042
4.500	5.000	-.02426	.00143	.00060	.03103	.00447	.00085	.00447	.00085	.00085	.16881
4.500	6.000	-.02776	.00053	.00136	.03096	.00438	.00085	.00438	.00085	.00085	.16595
4.500	7.000	-.03116	.01272	.00165	.03085	.00425	.00085	.00425	.00085	.00085	.16282
4.500	8.000	-.03355	.01637	.00240	.03074	.00414	.00085	.00414	.00085	.00085	.15989
4.500	9.000	-.03750	.02462	.00276	.03066	.00396	.00085	.00396	.00085	.00085	.15750
4.500	10.000	-.04137	.03071	.00344	.03053	.00380	.00085	.00380	.00085	.00085	.15524
	GRADIENT	-.00449	.00393	.0074	.00233	-.00059	-.00024	-.00059	-.00024	-.00024	-.00024

DATE 22 OCT 74

## AEDC WA-482(1A-57), CRUET WEIGHT SEE

## REFERENCE DATA

SREF =	2800.0000 30.7T.	XRP =	1107.0000 IN. X3
LREF =	1250.3000 IN.	YRP =	.000C IN. Y3
BREF =	1250.3000 IN.	ZRP =	.000.0000 IN. Z3
SCALE =	.0100		

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(181100) (18 APR 74)

## PARAMETRIC DATA

L-SRP =	.000	R-SRP =	.000
SREFD =	.200	RVAL =	1.700
PT-JET =	.000	ALPHA =	.000

RUN NO. 82/0 RVAL = 1.70 GRADIENT INTERVAL = -5.00V 5.00

MACH	BETA	ALPHA	CN	CLW	CT	CN	PCL	MTL
4.500	-10.000	-13268	-.01615	-.00704	.00056	.02032	.03338	.22271
4.500	-9.000	-12559	-.02137	-.00656	.07600	.01864	.02973	.19904
4.500	-8.000	-12050	-.02374	-.00612	.07222	.01763	.02698	.19595
4.500	-7.000	-11434	-.02400	-.00529	.06673	.01647	.02334	.19252
4.500	-6.000	-10852	-.02362	-.00529	.06175	.01537	.02030	.18930
4.500	-5.000	-10450	-.02569	-.00496	.05847	.01438	.01861	.18622
4.500	-4.000	-9998	-.02415	-.00460	.05114	.01231	.01521	.18403
4.500	-3.000	-95380	-.02441	-.00472	.04561	.01097	.01215	.18215
4.500	-2.000	-9213	-.02307	-.00443	.04124	.00962	.00926	.18050
4.500	-1.000	-8958	-.02630	-.00416	.03696	.00839	.00824	.17898
4.500	.000	-86759	-.02707	-.00399	.03263	.00704	.00763	.17773
4.500	1.000	-83509	-.02774	-.00324	.02513	.00557	.00597	.16989
4.500	2.000	-80339	-.02669	-.00271	.02420	.00450	.00454	.16247
4.500	3.000	-76290	-.02932	-.00220	.02029	.00336	.00326	.15443
4.500	4.000	-72246	-.03127	-.00142	.01636	.00217	.00217	.14843
4.500	5.000	-68206	-.03261	-.00067	.01367	.00175	.00175	.14756
4.500	6.000	-64169	-.03471	-.00017	.00950	-.00141	-.00141	.14932
4.500	7.000	-60130	-.03689	-.00067	.00695	-.00157	-.00157	.14126
4.500	8.000	-56094	-.03804	-.00166	.00494	-.00268	-.00268	.13443
4.500	9.000	-52055	-.03912	-.00269	.00313	-.00363	-.00363	.12934
4.500	10.000	-48029	-.04142	-.00369	.00222	-.00465	-.00465	.12446
	GRADIENT	0.0212	-.00000	0.000	0.000	0.000	0.000	0.000

DATE 29 OCT 74

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AEDC VA-42211A-37, OBSET WRIGHT SRS

(101019) (10 APR 74)

## REFERENCE DATA

BREF = 2000.0000 SQ. FT.  
 LREF = 1250.0000 IN.  
 DREF = 1250.0000 IN.  
 SCALE = .0100

## REFERENCE DATA

XRP = 1167.0000 IN. YRP = .0000 IN. ZRP = 400.0000 IN. ZS = .0000

RUN NO. 64V 0 RVL = 1.00 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	CN	CLW	CY	CRN	PL	ML
4.500	-10.000	.17925	.52403	-.03167	.28661	.02191	-.01219	.22370
4.500	-9.000	.16000	.51751	-.03227	.28673	.02211	-.01219	.22076
4.500	-8.000	.17958	.51127	-.03269	.28637	.02232	-.01231	.21534
4.500	-7.000	.17665	.52570	-.03258	.28776	.02244	-.01232	.20843
4.500	-6.000	.17689	.50052	-.03213	.28655	.02266	-.01261	.21396
4.500	-5.000	.17458	.49577	-.03194	.28563	.02282	-.01260	.19732
4.500	-4.000	.17220	.49041	-.03093	.28443	.02301	-.01277	.19042
4.500	-3.000	.16981	.49613	-.03004	.28398	.02311	-.01270	.18438
4.500	-2.000	.16877	.48246	-.02666	.28222	.02315	-.01261	.17757
4.500	-1.000	.16234	.48040	-.02656	.28160	.02384	-.01261	.17129
4.500	.000	.15928	.47962	-.02439	.28267	.02355	-.01324	.16894
4.500	1.000	.15616	.47376	-.02220	.28345	.02277	-.01374	.16716
4.500	2.000	.15289	.47203	-.02231	.28317	.02232	-.01420	.15471
4.500	3.000	.14970	.46787	-.01863	.28080	.02147	-.01446	.14932
4.500	4.000	.14724	.46428	-.01716	.28362	.02132	-.01451	.14442
4.500	5.000	.14447	.45938	-.01616	.28595	.02024	-.01473	.13958
4.500	6.000	.14350	.45492	-.01489	.28569	.01932	-.01483	.13410
4.500	7.000	.14470	.45115	-.01397	.28307	.01821	-.01496	.12919
4.500	8.000	.14658	.44624	-.01335	.28106	.01714	-.01396	.12477
4.500	9.000	.14981	.44063	-.01267	.28136	.01651	-.01313	.12055
4.500	10.000	.15352	.43571	-.01201	.28166	.01610	-.01237	.11658
	GRADIENT	-.00307	.00333	.00171	.00116	-.00027	-.00023	-.00376

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NETC 94-432/11-28

Benzene 617

PARAMETRIC DATA		
SREF	= 2800.0000 SQ.FT.	XHPP = 1167.0000 IN. X5
SREF	= 1250.3000 IN.	YHPP = .0000 IN. Y5
SREF	= 1250.3000 IN.	ZHPP = .0000 IN. Z5
SCALE	= .0100	L-350 = .0000 R-350 = .0000
		SRP08 = .0000 PNL = 1.750
		PT-JET = 750.0000 ALPHA = .0000

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L-380	=	.000	=	2,000
SL-380	=	.200	=	1,700
PT-JET	=	790,000	=	.000

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PARTE II

DATE 29 OCT 74

## AEDC VA-422(1A-97), CRV/ET WRIGHT SRB

## REFERENCE DATA

SREF =	2800.0000 SQ.FT.	XRP =	1167.0000 IN. X5
UREF =	1250.3000 IN.	YRP =	.0000 IN. Y5
BREF =	1250.3000 IN.	ZRP =	400.0000 IN. Z5
SCALE =	.0100		

RIN NO. 054/0 RVL = 1.90

GRADIENT INTERVAL = -1.00/ 5.00

MACH	ALPHA	BETA	CN	CLW	CT	CM	CDL	MTL
4.500	-10.000	.35483	-.96137	-.03287	.54285	.03679	-.01163	.18814
4.500	-9.000	.35622	-.95536	-.03226	.54221	.03623	-.01182	.18339
4.500	-8.000	.35712	-.94893	-.03135	.54102	.03537	-.01218	.17053
4.500	-7.000	.35828	-.94265	-.03033	.53951	.03431	-.01255	.17437
4.500	-6.000	.34794	-.93995	-.02950	.53728	.03362	-.01296	.17010
4.500	-5.000	.34253	-.93604	-.02854	.53533	.03351	-.01301	.16571
4.500	-4.000	.34005	-.93295	-.02765	.53353	.03369	-.01300	.15952
4.500	-3.000	.33949	-.93017	-.02682	.53221	.03450	-.01346	.15342
4.500	-2.000	.33936	-.92667	-.02535	.53167	.03494	-.01391	.14674
4.500	-1.000	.33792	-.92326	-.02497	.52983	.03532	-.01442	.14077
4.500	.0000	.33829	-.92020	-.02423	.52963	.03582	-.01515	.13457
4.500	1.000	.33534	-.91726	-.02031	.53160	.03575	-.01545	.12861
4.500	2.000	.33021	-.91470	-.01833	.53607	.03689	-.01534	.12272
4.500	3.000	.32357	-.91132	-.01648	.54160	.03343	-.01531	.11774
4.500	4.000	.31941	-.90555	-.01470	.54676	.03144	-.01534	.11385
4.500	5.000	.31641	-.89977	-.01317	.55192	.02961	-.01531	.11054
4.500	6.000	.31384	-.89390	-.01182	.55623	.02819	-.01576	.10702
4.500	7.000	.31123	-.88843	-.01046	.56066	.02690	-.01634	.10399
4.500	8.000	.30769	-.88337	-.00972	.56406	.02547	-.01642	.10099
4.500	9.000	.30596	-.87872	-.00872	.56835	.02458	-.01563	.09693
4.500	10.000	.30404	-.87325	-.00856	.57161	.02414	-.01483	.09666
	GRADIENT	-.00253	.011343	.00161	-.00026	-.00027	-.00566	

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(071.021) (10 APR 74)

## PARAMETRIC DATA

L-3510 =	.000	R-3510 =	2.000
SREFS =	.200	RVL =	1.700
PT-JET =	1500.000	BETA =	.300

DATE 22 OCT 74

ארכיאולוגיה של ירושלים

דעת יהודית

SCALE	1:1000
STRETCH	2000.0000 SQ. FT.
LURE	1000.0000 IN.
BRENT	1200.0000 IN.
L-300	1167.0000 IN. X5
SR-500	1000.0000 IN. X5
PT-JET	1500.0000 IN. X5
R-500	1000.0000 IN. X5
ALW/L	1000.0000 IN. X5
SR-500	1000.0000 IN. X5
PT-JET	1500.0000 IN. X5
R-500	1000.0000 IN. X5

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BIBLIOGRAPHIC DATA

DATE 29 OCT 74

AEDC YA-4821(A-571) - CRADLE WEIGHT SHE

## REFERENCE DATA

SREF = 2800,0000 SQ.FT. XREF = 1167,0000 IN. Y<sub>1</sub>  
 LREF = 1200,3000 IN. YREF = .0000 IN. Y<sub>2</sub>  
 BREF = 1200,3000 IN. ZREF = 400,0000 IN. Z<sub>2</sub>  
 SCALE = .0100

## PARAMETRIC DATA

(1971 DEC) ( 10 APR 74 )

PAGE 102

RUN NO.

GRADIENT INTERVAL = -5.000

0

GRADIENT INTERVAL = -5.000

5.00

GRADIENT = 1.31

L-SPE = .000,000 R-SPE = 3,300

SRPOS = .300,300 RNL = 1,400

PT-JET = 1500,000 BETA = .000

C/N

CLW

CV

PCL

MTL

.03073

.03114

.03137

.03157

.03193

.03227

.03252

.03270

.03295

.03322

.03349

.03376

.03404

.03432

.03459

.03486

.03513

.03540

.03567

.03594

.03621

.03648

.03675

.03702

.03729

.03756

.03783

.03810

.03837

.03864

.03891

.03918

.03945

.03972

.04000

.04028

.04056

.04083

.04110

.04137

.04164

.04191

.04218

.04245

.04272

.04300

.04327

.04354

.04381

.04408

.04435

.04462

.04489

.04516

.04543

.04570

.04597

.04624

.04651

.04678

.04705

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DATE 29 OCT 74

## ANALYST VA-422(1A-97), ORBIT WEIGHT SEE

## REFERENCE DATA

SREF	=	2880.0000 SA, FT.
UREF	=	1290.3000 IN.
BREF	=	1290.3000 IN.
SCALE	=	.0100

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(1971024) 1 18 APR 74 )

## PARAMETRIC DATA

XREF	=	1167.0000 IN. X5
YREF	=	.0000 IN. Y5
ZREF	=	400.0000 IN. Z5

RUN NO. 88V 0 RNL = 1.51 GRADIENT INTERVAL = -3.00 3.00

MACH	BETA	ALPHA	CN	CL	CD	CR	CM	PC	PTL
4.500	-10.000	-.12444	-1.12410	-.09456	.72200	.03010	.00050	.15700	
4.500	-9.500	-.12243	-1.12500	-.09476	.71638	.03060	.00064	.15510	
4.500	-8.000	-.12139	-1.12630	-.09493	.71077	.03093	.00097	.15493	
4.500	-7.000	-.11908	-1.12770	-.09498	.70477	.03176	.00171	.15354	
4.500	-6.000	-.11684	-1.12910	-.09493	.69987	.03708	.02402	.15349	
4.500	-5.000	-.11282	-1.13050	-.09460	.69479	.03593	.00799	.15575	
4.500	-4.000	-.10836	-1.13310	-.09496	.69045	.03479	.00107	.15535	
4.500	-3.000	-.10601	-1.13600	-.09500	.68613	.03396	.01357	.15636	
4.500	-2.000	-.10331	-1.13910	-.09500	.68140	.03311	.01622	.15701	
4.500	-1.000	-.10046	-1.14060	-.09435	.67586	.03253	.01912	.15636	
4.500	.000	-.10063	-1.14260	-.09418	.67160	.03146	.02163	.16123	
4.500	1.000	-.10581	-1.14360	-.09374	.66709	.03054	.02520	.16032	
4.500	2.000	-.11016	-1.14460	-.09339	.66363	.02973	.03046	.17239	
4.500	3.000	-.11008	-1.14650	-.09330	.66027	.02869	.03639	.17623	
4.500	4.000	-.10701	-1.14790	-.09333	.65708	.02791	.04439	.16314	
4.500	5.000	-.09939	-1.14980	-.09338	.65433	.02594	.05432	.18414	
4.500	6.000	-.08930	-1.15150	-.09326	.65127	.02379	.06455	.18487	
4.500	7.000	-.08435	-1.15330	-.09311	.64967	.02293	.07210	.18753	
4.500	8.000	-.08234	-1.15360	-.09249	.64772	.02226	.07685	.18959	
4.500	9.000	-.08347	-1.15500	-.09163	.64543	.02086	.08079	.19121	
4.500	10.000	-.08166	-1.15600	-.05116	.64322	.02007	.08337	.19324	
	GRADIENT	.00041	-.00163	.00021	-.00416	-.00067	-.00426	.00324	

## REFERENCE DATA

XREF = 2800.0000 30.FT.  
 LREF = 1250.3000 IN.  
 BREF = 1250.3000 IN.  
 SCALE = .0100

RUN NO. 7770 RVL = 1.07

GRADIENT INTERVAL = -3.0V 5.00

MACH	ALPHA	BETA	CN	CH	CV	CTN	COL	HTL
4.500	-10.000	.00260	-1.4746	-.00365	.07041	.00006	.00002	.23984
4.500	-9.000	.00256	-1.3987	-.00369	.07777	.00450	.00047	.22930
4.500	-8.000	.00315	-1.2591	-.00360	.07733	.00401	.00040	.22407
4.500	-7.000	.00324	-1.1480	-.00366	.07607	.00392	.00037	.21798
4.500	-6.000	.00338	-1.0367	-.00435	.07466	.00399	.00022	.21217
4.500	-5.000	.00338	-0.9337	-.00483	.07354	.00397	.00022	.20524
4.500	-4.000	.00336	-0.8639	-.00493	.07239	.00386	.00023	.20019
4.500	-3.000	.00367	-0.7367	-.00446	.07143	.00343	.00017	.19370
4.500	-2.000	.00375	-0.6791	-.00400	.07123	.00285	.00009	.18847
4.500	-1.000	.00379	-0.6027	-.00329	.07127	.00205	.00019	.18324
4.500	.000	.00329	-0.5319	-.00257	.07074	.00148	.00006	.17913
4.500	1.000	.00303	-0.4643	-.00177	.07100	.00072	.00007	.17606
4.500	2.000	.00314	-0.4024	-.00068	.07000	.00001	.00002	.17382
4.500	3.000	.00305	-0.3420	-.00022	.06950	-.00041	-.00016	.17134
4.500	4.000	.00321	-0.2833	.00066	.06972	-.00102	-.00023	.16921
4.500	5.000	.00360	-0.2263	.00172	.06979	-.00163	-.00026	.16684
4.500	6.000	.00447	-0.1766	.00260	.06925	-.00260	-.00033	.16374
4.500	7.000	.00593	-0.1294	.00315	.06956	-.00327	-.00027	.16070
4.500	8.000	.00765	-0.0800	.00412	.06970	-.00334	-.00013	.15730
4.500	9.000	.00754	-0.0225	.00477	.06722	-.00332	-.00012	.15502
4.500	10.000	.00746	.00393	.00518	.06693	-.00203	.00002	.15234
	GRADIENT	-	.00003	.00696	.00700	-.00032	-.00003	-.00364

(181.023) (116 APR 74)

## PARAMETRIC DATA

L-SPB = .000 R-SPB = 3.000  
 SPFBG = .300 RFL = 1.700  
 PT-JET = .000 BTA = .000

DATE 29 OCT 74

## AEDC VVA-422(1A-37), CRIBET WRIGHT SRS

## REFERENCE DATA

SREF = 2850,0000 SD.FT.  
 LREF = 1250,3000 IN.  
 BREF = 1250,3000 IN.  
 SCALE = .0100

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(16 APR 74)

## PARAMETRIC DATA

L-SRP = .000 R-SRP = 5.000  
 SRP08 = .300 RAVL = 1.760  
 PT-JET = .000 ALPHA = .000

RUN NO. 76' 0 RAVL = 1.87 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CLH	CT	CM	PL	MTL
4.500	-10.000	-.13477	-.06285	-.00360	.16051	.00703	.03484	.19916
4.500	-9.000	-.12763	-.06239	-.00352	.14951	.00632	.03111	.19474
4.500	-8.000	-.12058	-.06191	-.00349	.13864	.00595	.02734	.19181
4.500	-7.000	-.11469	-.06169	-.00344	.13014	.00560	.02379	.18891
4.500	-6.000	-.10868	-.05953	-.00320	.12228	.00535	.02034	.18569
4.500	-5.000	-.10252	-.05854	-.00317	.11063	.00511	.01662	.18332
4.500	-4.000	-.09667	-.05749	-.00319	.10130	.00490	.01260	.18021
4.500	-3.000	-.09040	-.05720	-.00351	.09250	.00462	.00922	.17614
4.500	-2.000	-.08236	-.05716	-.00341	.08530	.00430	.00583	.17293
4.500	-1.000	-.06923	-.05712	-.00284	.07820	.00291	.00230	.17727
4.500	.000	-.06563	-.05669	-.00233	.07082	.00211	-.00116	.17724
4.500	1.000	-.06349	-.05682	-.00164	.06365	.00142	-.00459	.17543
4.500	2.000	-.06130	-.05662	-.00114	.05710	.00046	-.00814	.16121
4.500	3.000	-.06017	-.05610	-.00067	.05247	-.00027	-.01173	.16226
4.500	4.000	-.05919	-.05605	-.00037	.04401	-.00039	-.01489	.16474
4.500	5.000	-.05769	-.05539	.00023	.03699	-.00160	-.01617	.16437
4.500	6.000	-.05082	-.05342	.00016	.03148	-.00238	-.02136	.16736
4.500	7.000	-.04619	-.05477	.00156	.02546	-.00320	-.02468	.16951
4.500	8.000	-.04113	-.05346	.00096	.01900	-.00311	-.02865	.16985
4.500	9.000	-.04123	-.05134	.00023	.01338	-.00224	-.03223	.16911
4.500	10.000	-.04236	-.04901	-.00072	.00734	-.00338	-.03639	.16987
	GRADIENT	.00284	.00024	.00049	-.00719	-.00347	-.00714	.00051

DATE 29 OCT 74

## ALDC VA-422(1A-37), ORB/ET WRIGHT SRB

## REFERENCE DATA

SREF = 2650,0000 SQ.FT.  
 LREF = 1250,3000 IN.  
 DREF = 1250,3000 IN.  
 SCALE = .0100

L-SREF = 1167,0000 IN. X5  
 YREF = 1000 IN. Y5  
 ZREF = 403,0000 IN. Z5

L-SREF = .500 2.988 2  
 YREF = .353 2.988 2  
 ZREF = .700,300 2.988 2

1ST-L2271 ( 16 APR 74 )

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## PARAMETRIC DATA

RUN NO.	SDV 0	RNL =	1.87	GRADIENT INTERVAL =	-5.00	5.00
MACH	ALPHA	BETA	ON	CLW	CY	CY
4.500	-10,000	-.00202	-.53604	-.03172	.29079	.01973
4.500	-9,000	-.00424	-.53288	-.03204	.29741	.02224
4.500	-8,000	-.00610	-.53774	-.03233	.29604	.02297
4.500	-7,000	-.00829	-.5414	-.03259	.29531	.02160
4.500	-6,000	-.01077	-.51087	-.03291	.29493	.02203
4.500	-5,000	-.01413	-.50427	-.03328	.29486	.02229
4.500	-4,000	-.01796	-.50337	-.03340	.29534	.02184
4.500	-3,000	-.02219	-.49655	-.03301	.29564	.02150
4.500	-2,000	-.02882	-.45324	-.03220	.29582	.02099
4.500	-1,000	-.03111	-.40878	-.03125	.30163	.02121
4.500	.000	-.03457	-.48461	-.03011	.30465	.01927
4.500	1,000	-.03722	-.49085	-.02976	.30806	.01830
4.500	2,000	-.03829	-.47768	-.02739	.31163	.01730
4.500	3,000	-.03879	-.47527	-.02577	.31498	.01694
4.500	4,000	-.03950	-.47303	-.02413	.31774	.01467
4.500	5,000	-.03966	-.45393	-.02243	.32122	.01398
4.500	6,000	-.039524	-.46714	-.02083	.32224	.01309
4.500	7,000	-.03453	-.46366	-.01954	.32353	.01264
4.500	8,000	-.03582	-.46210	-.01811	.32415	.01270
4.500	9,000	-.03922	-.45699	-.01644	.32362	.01320
4.500	10,000	-.04120	-.45379	-.01475	.32383	.01376
GRADIENT		-.00266	.00350	.00114	.00276	-.00087

DATE 28 OCT 74

ADDC W-42211A-371, CREDIT WEIGHT 200

GRADIENT DATA

STEP = 2000.0000 30. INT.  
LNUF = 1220.3000 IN.  
PNUF = 1200.3000 IN.  
SCALE = 10.00

PARAMETRIC DATA

L-350 = 0.000 R-350 = 3.000  
RNUF = 1.700  
PT-NFT = 700.000 ALPHAI = 0.000

RUN NO. 78/0 RFL = 1.97 GRADIENT INTERVAL = 5.00

WICH	BETA	ALPHA	CN	CH	CT	CN	CH	CL	ML
4.500	-10.000	-14359	-47265	-20066	37053	0.0155	0.02768	0.02768	0.02768
4.500	-9.000	-14911	-47284	-20066	36929	0.0152	0.02269	0.02269	0.02269
4.500	-8.000	-14717	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	-7.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	-6.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	-5.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	-4.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	-3.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	-2.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	-1.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	0.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	1.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	2.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	3.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	4.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	5.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	6.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	7.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	8.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	9.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
4.500	10.000	-14730	-47353	-32179	39972	0.0212	0.01751	0.01751	0.01751
									GRADIENT

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DATE 29 OCT 74

AFDC VA-42211A-37: DIRECT WEIGHT AND

## REFERENCE DATA

XRP = 2500.0000 50.17. XRP = 1167.0000 IN. Y3  
 YRP = 1200.3000 IN. YRP = .0000 IN. Y3  
 ZRP = 1200.3000 IN. ZRP = 400.0000 IN. Z3  
 SCALE = .0100

RUN NO. 81/0 PNL = 1.87 GRADIENT INTERVAL = -3.00 3.00

MACH	ALPHA	BETA	CH	CLW	CT	CRW	CL
4.500	-10.000	-.02299	-.96996	-.04900	.54985	.02683	-.01296
4.500	-9.000	-.02672	-.96013	-.04903	.56100	.02844	-.01609
4.500	-8.000	-.03056	-.95178	-.04924	.56536	.02879	-.01615
4.500	-7.000	-.03339	-.95760	-.04952	.56519	.02891	-.01696
4.500	-6.000	-.03357	-.95289	-.04915	.54457	.02822	-.02214
4.500	-5.000	-.03647	-.94894	-.04723	.54486	.02837	.15913
4.500	-4.000	-.03772	-.93444	-.04898	.54380	.02833	.15936
4.500	-3.000	-.03673	-.93965	-.04777	.54413	.02835	.02407
4.500	-2.000	-.03550	-.93037	-.04952	.54557	.02842	-.02387
4.500	-1.000	-.03448	-.92769	-.04854	.54610	.02843	-.02347
4.500	.000	-.02913	-.92231	-.04538	.55214	.02221	.17786
4.500	1.000	-.02323	-.91351	-.04587	.55549	.02185	-.15981
4.500	2.000	-.01798	-.91688	-.04777	.55653	.02210	-.02213
4.500	3.000	-.01624	-.91440	-.04522	.56241	.02412	-.02113
4.500	4.000	-.01873	-.91031	-.04173	.56513	.02295	-.02310
4.500	5.000	-.02479	-.90121	-.04010	.56810	.02196	-.02110
4.500	6.000	-.03129	-.89436	-.03841	.56840	.02127	-.02079
4.500	7.000	-.03577	-.89183	-.03689	.57000	.02083	-.01991
4.500	8.000	-.03700	-.89939	-.03596	.57313	.02035	-.01905
4.500	9.000	-.04191	-.89703	-.03298	.57616	.01996	-.01925
4.500	10.000	-.04761	-.89340	-.03141	.58024	.02024	-.01871
	GRADIENT	.03221	.03221	.03221	.03273	.03095	-.01634

## PARAMETRIC DATA

L-350 = .000 S-350 = .000  
 SPPOS = .300 EAC = 1.000  
 PT-JET = 1500.000 SETA = .000

1571000 1 15 100 74

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NET V=12111-15

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**PARAMETRIC DATA**

SPEED =	2800.0000 SQ.FT.	XHYP =	1167.0000 IN. X5
LREF =	1250.3000 IN.	YHYP =	.0000 IN. Y5
BREF =	1250.3000 IN.	ZHYP =	400.0000 IN. Z5
SCALE =	.0100		

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## REPRODUCIBILITY OF THE ORIGINAL PAGE IN POUR

DATE 29 OCT 74

## AEDC VA-42211A-371, GRIBET W/ BOTH SBD

## REFERENCE DATA

MREF	=	2000.0000 SQ.FT.
LREF	=	1250.3000 IN.
RREF	=	1250.3000 IN.
BREF	=	1250.3000 IN.
SCALE	=	.0100

RUN NO. 15/ 0 RVAL = 1.00

MACH	ALPHA	BETA	CH	CLH	CLY	CTH	CTY	MTL
4.500	-10.000	.02728	-1.56110	-.05921	.87927	.02219 1516.80000	.02219 1516.80000	.91220
4.500	-9.000	.02909	-1.55920	-.05745	.87931	.02219 1516.00000	.02219 1516.00000	.91220
4.500	-8.000	.03135	-1.55150	-.05592	.87874	.02250 1516.10026	.02250 1516.10026	.91225
4.500	-7.000	.03762	-1.54820	-.05494	.87720	.02254 1516.20000	.02254 1516.20000	.91144
4.500	-6.000	.04169	-1.54290	-.05323	.87512	.02266 1517.85999	.02266 1517.85999	.91130
4.500	-5.000	.03968	-1.53990	-.05234	.87351	.02246 1516.10000	.02246 1516.10000	.91135
4.500	-4.000	.02865	-1.54340	-.05279	.87390	.02235 1516.60000	.02235 1516.60000	.91463
4.500	-3.000	.02103	-1.54520	-.05120	.87287	.02143 1519.50000	.02143 1519.50000	.91349
4.500	-2.000	.01826	-1.54020	-.04995	.87136	.02037 1519.60001	.02037 1519.60001	.91137
4.500	-1.000	.01592	-1.53360	-.04905	.86969	.01987 1519.10001	.01987 1519.10001	.91066
4.500	.000	.01410	-1.52880	-.04834	.86880	.01998 1516.20000	.01998 1516.20000	.91222
4.500	1.000	.01274	-1.52550	-.04797	.86863	.02016 1516.35999	.02016 1516.35999	.91163
4.500	2.000	.01122	-1.52170	-.04768	.86771	.02026 1516.30000	.02026 1516.30000	.91192
4.500	3.000	.00768	-1.51830	-.04653	.86763	.02107 1516.30000	.02107 1516.30000	.91321
4.500	4.000	.00539	-1.51460	-.04604	.86623	.02213 1516.30000	.02213 1516.30000	.91204
4.500	5.000	.00248	-1.51160	-.04748	.86941	.02230 1516.80001	.02230 1516.80001	.91316
4.500	6.000	.00446	-1.50790	-.04706	.87050	.02243 1516.80000	.02243 1516.80000	.91262
4.500	7.000	.00371	-1.50430	-.04702	.87194	.02243 1516.80000	.02243 1516.80000	.91370
4.500	8.000	.00297	-1.50160	-.04696	.87353	.02243 1519.10001	.02243 1519.10001	.91270
4.500	9.000	.00291	-1.49710	-.04631	.87373	.02234 1519.10001	.02234 1519.10001	.91285
4.500	10.000	.00395	-1.49330	-.04539	.87431	.02239 1519.00000	.02239 1519.00000	.91217
	GRADIENT	-.00269	.00349	-.00063	-.00061	-.00002	-.04545	-.00000

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(ST033) (16 APR 74)

## PARAMETRIC DATA

L-SRP	=	1.000	R-SRP	=	1.000
SREP	=	1.00	RVL	=	1.010
PT-JET	=	1500.000	BETA	=	.000

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NETS AND CLOUDS

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## REFERENCE DATA

SRDP = 2850.0000 90. FT.  
 YRDP = 1167.0000 IN.  
 LRDP = 1290.3000 IN.  
 ZRDP = 400.0000 IN. 25  
 SRDP = 1290.3000 IN.  
 SCALE = .0100

RUN NO. 13V 0 RVAL = 1.30 GRADIENT INTERVAL = -5.00 5.00

MACH	BETA	ALPHA	CN	CM	CT	CN	CM	CT	MTR
4.500	-10.000	-.55537	-1.102070	-.05566	.65750	.55445	1518.5000	.50812	
4.500	-9.000	-.55869	-1.10270	-.05534	.65250	.55581	1518.5000	.51025	
4.500	-8.000	-.57121	-1.10350	-.05444	.65250	.56631	1518.5000	.50950	
4.500	-7.000	-.58490	-1.10450	-.05496	.65052	.56241	1518.5000	.51026	
4.500	-6.000	-.59376	-1.10550	-.05563	.65153	.55589	1518.5000	.51076	
4.500	-5.000	-.59471	-1.10650	-.05635	.65257	.56175	1518.5000	.51056	
4.500	-4.000	-.59147	-1.10750	-.05734	.65753	.56150	1518.5000	.51116	
4.500	-3.000	-.58217	-1.11150	-.05818	.62937	.56157	1518.5000	.50393	
4.500	-2.000	-.53268	-1.11250	-.05971	.62687	.56153	1518.5000	.50768	
4.500	-1.000	-.53795	-1.11350	-.06070	.62721	.56156	1517.5000	.50763	
4.500	.000	-.53446	-1.11310	-.06062	.62659	.56163	1517.5000	.50219	
4.500	1.000	-.53227	-1.11400	-.06190	.62545	.56160	1516.5000	.50369	
4.500	2.000	-.52668	-1.11500	-.06269	.62403	.56174	1516.5000	.50332	
4.500	3.000	-.51931	-1.11550	-.06334	.62173	.56179	1517.5000	.51047	
4.500	4.000	-.50622	-1.11700	-.06366	.62035	.56169	1516.5000	.51036	
4.500	5.000	-.49395	-1.11950	-.06401	.61781	.56189	1517.5000	.51117	
4.500	6.000	-.47828	-1.12150	-.06471	.61446	.56186	1517.5000	.51018	
4.500	7.000	-.47236	-1.12250	-.06420	.61093	.56187	1518.5000	.50873	
4.500	8.000	-.46435	-1.12350	-.06393	.60507	.56182	1517.5000	.50567	
4.500	9.000	-.45950	-1.12550	-.06352	.56353	.56192	1517.5000	.51169	
4.500	10.000	-.45104	-1.12650	-.06324	.56359	.56198	1517.5000	.50931	
	REFLECTION				.00122		.00026	-.14781	

## PARAMETRIC DATA

L-SRD = 1.000 R-SRD = 1.000  
 SRPPOS = 1.1100 RVAL = 1.400  
 PT-JET = 1500.000 ALPHAS = .000

DATE 28 OCT 74

ADDC VA-42211A-37, CURRENT WIDTH 300

REFERENCE DATA

XRP = 1000,0000 30,37. YRP = 1107,0000 IN. X8  
YRP = 1000,3000 IN. Y8 = .0000  
ZRP = 400,0000 IN. Z8 = .0000  
SCALE = .0100

RUN NO. VD RFL = 1.05 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	CH	CLW	CR	CW	CD	PCF
4.500	-10.00	.00615	-.07695	-.01032	.00260	.00612	-.00194	.0000
4.500	-9.00	.00620	-.06964	-.00995	.00296	.00614	-.00213	.0000
4.500	-8.00	.00572	-.06230	-.00747	.00260	.00471	-.00237	.0000
4.500	-7.00	.00596	-.05626	-.00616	.01741	.00412	-.00234	.0000
4.500	-6.00	.00584	-.04724	-.00502	.01425	.00347	-.00265	.0000
4.500	-5.00	.00523	-.04026	-.00453	.01006	.00352	-.00272	.0000
4.500	-4.00	.00461	-.03383	-.00388	.00760	.00370	-.00270	.0000
4.500	-3.00	.00421	-.02617	-.00317	.00444	.00353	-.00274	.0000
4.500	-2.00	.00311	-.02214	-.00272	.00534	.00313	-.00276	.0000
4.500	-1.00	.00130	-.01650	-.00143	.00646	.00319	-.00279	.0000
4.500	0.00	.00449	-.01266	-.00176	.00767	.00356	-.00280	.0000
4.500	1.00	.00452	-.00863	-.00224	.00865	.00352	-.00278	.0000
4.500	2.00	.00476	-.00316	-.00426	.00951	.00353	-.00276	.0000
4.500	3.00	.00496	-.00174	-.00525	.01047	.00351	-.00274	.0000
4.500	4.00	.00511	-.00043	-.00643	.01146	.00350	-.00273	.0000
4.500	5.00	.00514	.00264	.00721	.01242	.00349	-.00272	.0000
4.500	6.00	.00547	.01516	.00831	.01319	.00348	-.00271	.0000
4.500	7.00	.00527	.02226	.00925	.01425	.00347	-.00270	.0000
4.500	8.00	.00471	.02241	.01022	.01523	.00346	-.00269	.0000
4.500	9.00	.00463	.02736	.01125	.01621	.00345	-.00268	.0000
4.500	10.00	.00443	.04175	.01257	.01716	.00344	-.00267	.0000
	GRADIENT	.00005	.00060	.00113	.00156	.00051	.00026	.0000

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(181500) ( 15 APR 74 )

PARAMETRIC DATA

DATE 28 OCT 74

ANALYST: GENE WILSON SBS

PAGE 114

(101059) (10 APR 74)

## REFERENCE DATA

REFP =	2000.0000 IN. FT.
YREF =	1167.0000 IN.
ZREF =	400.0000 IN. 25
SCALZ =	.0100

## PARAMETRIC DATA

L-SPL =	1.000
SPLPOS =	1.100
PT-JET =	.000
R-SPR =	1.000
R-SPR =	1.700
ALPHA =	.000

RUN NO. 0 0 RVAL = 1.00 GRADIENT INTERVAL = -5.00 5.00

MACH	BETA	ALPHA	CN	CW	CY	CZ	PCL	MTL
4.500	-10.000	-14134	-.00105	-.00421	.00866	.00865	-.90300	.00000
4.500	-9.000	-13535	-.00136	-.00436	.00863	.00869	-.91281	.00000
4.500	-8.000	-12957	-.001212	-.00422	.00862	.00851	-.92353	.00000
4.500	-7.000	-12364	-.001332	-.00367	.00861	.00861	-.93334	.00000
4.500	-6.000	-11866	-.001467	-.00361	.00862	.00857	-.94374	.00000
4.500	-5.000	-11464	-.001614	-.00317	.00860	.00851	-.95374	.00000
4.500	-4.000	-11161	-.001772	-.00250	.00861	.00858	-.91353	.00000
4.500	-3.000	-10753	-.001929	-.00190	.00864	.00864	-.84374	.00000
4.500	-2.000	-10312	-.00131	-.00094	.00869	.00876	-.88274	.00000
4.500	-1.000	-9995	-.01376	.00014	-.00717	.00705	-.87234	.00000
4.500	.000	-95631	-.01826	.00366	-.00962	.00719	-.83163	.00000
4.500	1.000	-93304	-.01866	.01745	-.01195	.00713	-.86383	.00000
4.500	2.000	-90635	-.02068	.02025	-.01376	.00702	-.84374	.00000
4.500	3.000	-88046	-.02034	.02024	-.01680	.00708	-.85320	.00000
4.500	4.000	-85691	-.02577	.03415	-.01931	.00721	-.87139	.00000
4.500	5.000	-83505	-.02846	.03553	-.02237	.00745	-.84374	.00000
4.500	6.000	-80354	-.03153	.03692	-.02411	.00731	-.84374	.00000
4.500	7.000	-76572	-.03458	.04009	-.02698	.00736	-.87096	.00000
4.500	8.000	-73269	-.03754	.04297	-.02973	.00735	-.90377	.00000
4.500	9.000	-69276	-.03993	.04617	-.03374	.00747	-.85499	.00000
4.500	10.000	-65321	-.04292	.04912	-.03336	.00745	-.86374	.00000
	GRADIENT	.00304	-.00227	.00055	-.00266	.00056	.00256	

DATE 29 OCT 74

## AEDC VK-422(11-57), CRVET WORTH 890

## REFERENCE DATA

SREF	=	2800.0000 SQ.FT.	XREF	=	1167.0000 IN. X3
LREF	=	1200.3000 IN.	YREF	=	.0000 IN. Y3
BREF	=	1200.3000 IN.	ZREF	=	400.0000 IN. Z3
SCALE	=	.0100			

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DATE 18 APR 74

## PARAMETRIC DATA

L-REF	=	1.000	R-REF	=	1.000
SREF	=	1.000	MVL	=	1.760
PT-JET	=	190.000	BETA	=	.0000

RUN NO. 10/0 RVL = 1.00 GRADIENT INTERVAL = -3.00V 3.00

MACH	ALPHA	BETA	CH	CLH	CV	CM	PCL	MTL
4.500	-10.000	.01011	-.50015	-.02673	.25827	.01205	753.97000	.45200
4.500	-9.000	.00920	-.49610	-.02574	.25721	.01157	753.78000	.45180
4.500	-8.000	.00766	-.49128	-.02498	.25709	.01110	753.01000	.45161
4.500	-7.000	.00696	-.48639	-.02439	.25591	.01053	753.96000	.45173
4.500	-6.000	.00653	-.48057	-.02336	.25541	.01047	753.30000	.45093
4.500	-5.000	.00622	-.47501	-.02276	.25427	.01019	753.18000	.45141
4.500	-4.000	-.00228	-.47072	-.02222	.25351	.01071	753.16000	.45203
4.500	-3.000	-.00270	-.46760	-.02164	.25287	.01091	753.0.000	.45269
4.500	-2.000	-.00344	-.6307	-.02026	.25177	.01060	753.21000	.45122
4.500	-1.000	-.00735	-.45900	-.01925	.25122	.01073	753.99000	.45144
4.500	.000	-.00840	-.45584	-.01849	.25015	.01050	753.91000	.45162
4.700	1.000	-.00854	-.45245	-.01770	.25091	.01058	753.97000	.45187
4.500	2.000	-.00900	-.44860	-.01694	.25196	.00932	753.97000	.45110
4.500	3.000	-.01011	-.44440	-.01644	.25317	.00968	753.36000	.45146
4.500	4.000	-.01228	-.43900	-.01617	.25394	.00815	753.22000	.45100
4.500	5.000	-.01109	-.43375	-.01575	.25391	.00803	753.15000	.45136
4.500	6.000	-.00804	-.42884	-.01526	.25424	.00828	753.24000	.45110
4.500	7.000	-.00154	-.42450	-.01471	.25702	.00963	753.92000	.45191
4.500	8.000	-.00344	-.42085	-.01370	.25467	.01320	753.90000	.45161
4.500	9.000	.00223	-.41575	-.01271	.26855	.01347	753.84000	.45090
4.500	10.000	.00861	-.40916	-.01159	.26982	.01246	753.86000	.45160
GRADIENT		-.00315	.00396	.00075		-.00001	.00336	-.00002

## REFERENCE DATA

BREF =	2000.0000	SQ. FT.	XARP =	1167.0000	IN. X3
LREF =	1290.3000	IN.	YARP =	.0000	IN. Y3
BREF =	1290.3000	IN.	ZARP =	400.0000	IN. Z3
SCALE =					.0100

## PARAMETRIC DATA

MACH	BETA	ALPHA	ON	CLW	GRADIENT INTERVAL = -5.00 / 5.00		
					CY	CYN	PCL
4.500	-10.000	-.37935	-.44855	-.01695	.25639	.00395	750.74000
4.500	-9.000	-.38052	-.44817	-.01699	.25222	.00375	750.69000
4.500	-8.000	-.38460	-.44856	-.01692	.25316	.00362	750.49000
4.500	-7.000	-.38761	-.44953	-.01646	.25190	.00363	750.11000
4.500	-6.000	-.38899	-.44956	-.01646	.25235	.00378	749.34010
4.500	-5.000	-.38362	-.44959	-.01591	.25363	.00363	748.98000
4.500	-4.000	-.37729	-.45016	-.01967	.25419	.00384	748.69000
4.500	-3.000	-.37493	-.45375	-.02007	.25382	.00366	748.59000
4.500	-2.000	-.37039	-.45266	-.02024	.25256	.00367	748.47000
4.500	-1.000	-.36138	-.45483	-.01953	.25950	.01070	748.42000
4.500	.000	-.35213	-.45943	-.01627	.24959	.01114	748.16000
4.500	1.000	-.35220	-.45869	-.01691	.24369	.01116	747.72000
4.500	2.000	-.35347	-.46232	-.01594	.24103	.01134	747.56000
4.500	3.000	-.34327	-.46592	-.01536	.23959	.01166	747.43000
4.500	4.000	-.33390	-.46937	-.01437	.23676	.01159	747.62000
4.500	5.000	-.32744	-.47135	-.01374	.23484	.01178	747.16000
4.500	6.000	-.31322	-.47222	-.01300	.23171	.01273	747.20000
4.500	7.000	-.29776	-.47226	-.01260	.22903	.01317	746.93000
4.500	8.000	-.28637	-.47411	-.01207	.22362	.01374	747.34000
4.500	9.000	-.28623	-.47733	-.01106	.22380	.01425	746.96010
4.500	10.000	-.29638	-.48020	-.01025	.22122	.01438	746.96000
GRADIENT		.00332	-.00227	.00067	-.00214	.00035	.00032

DATE 29 OCT 74

ADDC VA-42211A-37, CRVET W/BOTH SRS

REFERENCE DATA

SREF = 2880.0000 SQ.FT. XRP = 1167.0000 IN. YS  
URP = 1290.3000 IN. YMRP = .0000 IN. YS  
BRP = 1290.3000 IN. ZMRP = 400.0000 IN. ZS  
SCALE = .0100

RUN NO. % D RFL = 1.00 GRADIENT INTERVAL = -3.00 5.00

MACH	ALPHA	BETA	C1	C4	C7	C10	C13	C16	C19	C21	MTL
4.500	-10.000	-.00249	-.932073	-.00286	.50384	.01643	1224.83200	.93330			
4.500	-9.000	-.00036	-.929225	-.00334	.50367	.01720	1225.10000	.93363			
4.500	-8.000	.00169	-.92465	-.00223	.51054	.01732	1224.00000	.93363			
4.500	-7.000	.00352	-.920226	-.00349	.51068	.01660	1224.90000	.93363			
4.500	-6.000	.00353	-.91695	-.00391	.50384	.01596	1224.10000	.93316			
4.500	-5.000	-.00022	-.91121	-.00357	.50466	.01455	1223.90000	.93701			
4.500	-4.000	-.00424	-.90695	-.00449	.50427	.01427	1224.30000	.93541			
4.500	-3.000	-.00315	-.90474	-.00421	.50457	.01415	1224.70000	.93640			
4.500	-2.000	.00185	-.89985	-.00391	.50423	.01362	1224.30000	.93320			
4.500	-1.000	.00262	-.89598	-.00398	.50431	.01330	1223.90000	.93700			
4.500	.000	.01590	-.89194	-.00343	.50339	.01296	1223.50000	.93602			
4.500	1.000	.01017	-.88866	-.00345	.50469	.01259	1224.39999	.93690			
4.500	2.000	.00554	-.88465	-.00364	.50533	.01263	1223.10001	.93770			
4.500	3.000	.00209	-.88101	-.00361	.50604	.01239	1224.39999	.93743			
4.500	4.000	.000413	-.87756	-.00323	.50560	.01244	1223.00000	.93696			
4.500	5.000	.01039	-.87376	-.00269	.50506	.01269	1224.39999	.93390			
4.500	6.000	.01657	-.86895	-.00230	.50466	.01270	1223.39999	.93316			
4.500	7.000	.01904	-.86463	-.00136	.50598	.01241	1223.20000	.93691			
4.500	8.000	.02023	-.85759	-.00074	.50513	.01216	1223.20000	.93691			
4.500	9.000	.02413	-.85510	-.00294	.50702	.01269	1222.90000	.93166			
4.500	10.000	.02620	-.85045	-.00290	.50876	.01226	1222.90000	.93365			
			GRADIENT		.00011						

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(16 APR 74)

PARAMETRIC DATA

DATE 22 OCT 74

ADDC VNA-432(1A-37), CRUET WAVEFORM 288

APPENDIX DATA

SCDF	1200,0000 IN.	XRP	1167,0000 IN.	XS
URP	1200,3000 IN.	YRP	1167,0000 IN.	YS
SRP	1200,3000 IN.	ZRP	1167,0000 IN.	ZS
SCAL	.0100			

RUN NO. 8/0 RVAL = 1.07 GRADIENT INTERVAL = -5.00, 5.00

MACH	BETA	ALPHA	Q	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	PCL	MTL
4.500	-10.000	-.89139	-.02666	.25847	.01265 1516,5000	.01265 1516,5000	.01265 1516,5000	.01265 1516,5000	.01265 1516,5000
4.500	-9.000	-.89135	-.02666	.25772	.01267 1516,7000	.01267 1516,7000	.01267 1516,7000	.01267 1516,7000	.01267 1516,7000
4.500	-8.000	-.89135	-.02666	.25703	.01266 1517,0000	.01266 1517,0000	.01266 1517,0000	.01266 1517,0000	.01266 1517,0000
4.500	-7.000	-.89135	-.02666	.25626	.01255 1517,5000	.01255 1517,5000	.01255 1517,5000	.01255 1517,5000	.01255 1517,5000
4.500	-6.000	-.89130	-.02666	.25549	.01254 1517,5000	.01254 1517,5000	.01254 1517,5000	.01254 1517,5000	.01254 1517,5000
4.500	-5.000	-.89125	-.02666	.25472	.01253 1517,5000	.01253 1517,5000	.01253 1517,5000	.01253 1517,5000	.01253 1517,5000
4.500	-4.000	-.89120	-.02666	.25395	.01252 1517,5000	.01252 1517,5000	.01252 1517,5000	.01252 1517,5000	.01252 1517,5000
4.500	-3.000	-.89115	-.02666	.25318	.01251 1517,5000	.01251 1517,5000	.01251 1517,5000	.01251 1517,5000	.01251 1517,5000
4.500	-2.000	-.89110	-.02666	.25241	.01250 1517,5000	.01250 1517,5000	.01250 1517,5000	.01250 1517,5000	.01250 1517,5000
4.500	-1.000	-.89105	-.02666	.25164	.01249 1517,5000	.01249 1517,5000	.01249 1517,5000	.01249 1517,5000	.01249 1517,5000
4.500	0.000	-.89100	-.02666	.25087	.01248 1517,5000	.01248 1517,5000	.01248 1517,5000	.01248 1517,5000	.01248 1517,5000
4.500	1.000	-.89095	-.02666	.25010	.01247 1517,5000	.01247 1517,5000	.01247 1517,5000	.01247 1517,5000	.01247 1517,5000
4.500	2.000	-.89090	-.02666	.24933	.01246 1517,5000	.01246 1517,5000	.01246 1517,5000	.01246 1517,5000	.01246 1517,5000
4.500	3.000	-.89085	-.02666	.24856	.01245 1517,5000	.01245 1517,5000	.01245 1517,5000	.01245 1517,5000	.01245 1517,5000
4.500	4.000	-.89080	-.02666	.24779	.01244 1517,5000	.01244 1517,5000	.01244 1517,5000	.01244 1517,5000	.01244 1517,5000
4.500	5.000	-.89075	-.02666	.24702	.01243 1517,5000	.01243 1517,5000	.01243 1517,5000	.01243 1517,5000	.01243 1517,5000
4.500	6.000	-.89070	-.02666	.24625	.01242 1517,5000	.01242 1517,5000	.01242 1517,5000	.01242 1517,5000	.01242 1517,5000
4.500	7.000	-.89065	-.02666	.24548	.01241 1517,5000	.01241 1517,5000	.01241 1517,5000	.01241 1517,5000	.01241 1517,5000
4.500	8.000	-.89060	-.02666	.24471	.01240 1517,5000	.01240 1517,5000	.01240 1517,5000	.01240 1517,5000	.01240 1517,5000
4.500	9.000	-.89055	-.02666	.24394	.01239 1517,5000	.01239 1517,5000	.01239 1517,5000	.01239 1517,5000	.01239 1517,5000
4.500	10.000	-.89050	-.02666	.24317	.01238 1517,5000	.01238 1517,5000	.01238 1517,5000	.01238 1517,5000	.01238 1517,5000
	GRADIENT	01358	-.00151	-.00157	-.00160	-.00163	-.00167	-.00169	-.00171

(871500) 110 APR 74

PARAMETRIC DATA

L-SRP	S-SRP	H-SRP	RVAL	ALPHA
1.000	1.100	1.000	1.000	1.000
PT-JET	1500,0000	1500,0000	1500,0000	1500,0000

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DATE OCT 21

MEC-VN-4221-371. GVENT VOGEL WAGEN

REFERENCES

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PARAPHRATIC DATA

L-380	1.000	R-380	1.000
SUPERSONIC	1.100	MMVL	6.750
PT-JET	.000	BETA	.000

GRADIENT = 0.0001, NO. OF RUNS = 1000

## REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 28 OCT 74

## AFDC VA-422(1A-57) , ORBIT WEIGHTS

## REFERENCE DATA

ZREF = 2800.0000 90.07.	XREF = 1157.0000 1N. 35
UREF = 1200.3000 1N.	YREF = .0000 1N. 75
SREF = 1200.3000 1N.	ZREF = 400.0000 1N. 25
SCALE = .0100	

## PARAMETRIC DATA

RUN NO.	MACH	BETA	ALPHA	CN	CLW	C <sub>T</sub>	CN	CLW	C <sub>T</sub>	MTL	MTL	MTL	
4.500	-10.000	-4.6387	.00014	-.00317	.00386	.00386	.00386	-.00317	.00386	.00386	.00386	.00386	.00386
4.500	-9.000	-4.4393	-.00022	-.00376	.00593	.00592	.00592	-.00376	.00593	.00592	.00592	.00592	.00592
4.500	-8.000	-4.3342	-.00169	-.00365	.00443	.00443	.00443	-.00365	.00443	.00443	.00443	.00443	.00443
4.500	-7.000	-4.1641	-.00313	-.00421	.00350	.00350	.00350	-.00421	.00350	.00350	.00350	.00350	.00350
4.500	-6.000	-4.0369	-.00447	-.00398	.00296	.00296	.00296	-.00398	.00296	.00296	.00296	.00296	.00296
4.500	-5.000	-3.9227	-.00515	-.00356	.00122	.00122	.00122	-.00356	.00122	.00122	.00122	.00122	.00122
4.500	-4.000	-3.8487	-.00723	-.00276	-.00086	.0086	.0086	-.00276	-.00086	.0086	.0086	.0086	.0086
4.500	-3.000	-3.7633	-.00919	-.00163	-.00260	.00260	.00260	-.00163	-.00260	.00260	.00260	.00260	.00260
4.500	-2.000	-3.6738	-.01133	-.00398	-.00517	.00517	.00517	-.00398	-.00517	.00517	.00517	.00517	.00517
4.500	-1.000	-3.5939	-.01373	-.00396	-.00798	.00798	.00798	-.00396	-.00798	.00798	.00798	.00798	.00798
4.500	.000	-3.5619	-.01592	.00354	-.00698	.00698	.00698	.00354	-.00698	.00698	.00698	.00698	.00698
4.500	1.000	-3.5983	-.01750	.00113	-.01197	.00227	.00227	-.01197	.00227	.00227	.00227	.00227	.00227
4.500	2.000	-3.6358	-.02024	.00198	-.01434	.00532	.00532	-.01434	.00532	.00532	.00532	.00532	.00532
4.500	3.000	-3.6724	-.02222	.00252	-.01600	.00638	.00638	-.01600	.00638	.00638	.00638	.00638	.00638
4.500	4.000	-3.7387	-.02442	.00320	-.01871	.00943	.00943	-.01871	.00943	.00943	.00943	.00943	.00943
4.500	5.000	-3.8139	-.02701	.00462	-.02160	.00867	.00867	-.02160	.00867	.00867	.00867	.00867	.00867
4.500	6.000	-3.8941	-.02956	.00675	-.02332	.00676	.00676	-.02332	.00675	.00676	.00676	.00676	.00676
4.500	7.000	-3.9860	-.03229	.00700	-.02569	.00684	.00684	-.02569	.00684	.00684	.00684	.00684	.00684
4.500	8.000	-4.0864	-.03464	.00812	-.02753	.00714	.00714	-.02753	.00714	.00714	.00714	.00714	.00714
4.500	9.000	-4.1933	-.03733	.00924	-.02966	.00729	.00729	-.02966	.00729	.00729	.00729	.00729	.00729
4.500	10.000	-4.2668	-.03973	.01019	-.03101	.00763	.00763	-.03101	.00763	.00763	.00763	.00763	.00763
		GRADIENT	.00116	-.00215	.00077	.0003	.0003	-.00215	.00077	.0003	.0003	.0003	.0003

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(181041) ( 18 APR 74 )

PARAMETRIC DATA

L-360 = 1.000	P-360 = 1.000
SINPOS = .0000	RVAL = .0000
PT-JET = .0000	ALFA = .0000

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<b>85-F</b>	=	<b>2000,000 SQ.FT.</b>	<b>85-FP</b>	=	<b>1167,000 IN. X</b>
<b>85-F</b>	=	<b>1200,000 IN.</b>	<b>Y85P</b>	=	<b>.000 IN. Y5</b>
<b>85-F</b>	=	<b>1200,000 IN.</b>	<b>Z85P</b>	=	<b>400,000 IN. Z5</b>
					<b>L-55B = 2.000 R-55B = 2.000</b>
					<b>S8500 = 2.200 R85L = 1.010</b>
					<b>PI-JET = 1500.000 BETA = .000</b>

L-2238 = 2.000  
SR3800 = 2.200 R-595 = 2.000

MTL	.91362
.91323	
.91351	
.91308	
.91286	
.91337	
.91415	
.91510	
.91247	
.91240	
.91453	
.91504	
.91499	
.91354	
.91525	
.91497	
.91515	
.91439	
.91493	
.91417	
.91153	
.90033	

DATE 29 OCT 74

## ADDC VA-422(1A-57) - CRUET WARTH SRB

## REFERENCE DATA

SREF =	2890.000 SQ.FT.	XREF =	1167.000 IN. X5
LREF =	1290.300 IN.	YREF =	0.000 IN. Y5
BREF =	1290.300 IN.	ZREF =	400.000 IN. Z5
SCREF =	.0100		

## PARAMETRIC DATA

L-SR5 =	2.000	R-SR5 =	2.000
SR5POS =	2.200	RVL =	1.000
FT-JET =	1930.000	BETA =	.0000

RUN NO. 3W 0 RVL = 1.00 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	ON	CIN	CLN	CY	CIN	PCL	MTL
4.500	-10.000	.02427	-1.16910	-.00011	.00115	.04779 150.0000	.01791		
4.500	-9.000	.03070	-1.18470	-.01000	.07933	.04752 150.0000	.01753		
4.500	-8.000	.03773	-1.19130	-.02000	.07939	.04680 150.0000	.01625		
4.500	-7.000	.04373	-1.19620	-.03000	.07945	.04635 150.0000	.01501		
4.500	-6.000	.04982	-1.19110	-.04000	.07944	.04634 150.0000	.01476		
4.500	-5.000	.05592	-1.18490	-.05000	.07947	.04632 150.0000	.01453		
4.500	-4.000	.06204	-1.17800	-.06000	.07950	.04630 150.0000	.01430		
4.500	-3.000	.06817	-1.17000	-.06977	.07954	.04716 150.0000	.01410		
4.500	-2.000	.07429	-1.16200	-.08000	.07958	.04707 150.0000	.01394		
4.500	-1.000	.08041	-1.15200	-.09000	.07961	.04534 150.0000	.01380		
4.500	.000	.08653	-1.14100	-.09950	.07965	.04531 150.0000	.01366		
4.500	1.000	.09265	-1.12900	-.10950	.07969	.04531 150.0000	.01352		
4.500	2.000	.09877	-1.11600	-.11950	.07973	.04530 150.0000	.01338		
4.500	3.000	.10489	-1.10200	-.12950	.07976	.04529 150.0000	.01324		
4.500	4.000	.11101	-1.08700	-.13950	.07980	.04528 150.0000	.01310		
4.500	5.000	.11713	-1.07100	-.14950	.07983	.04526 150.0000	.01296		
4.500	6.000	.12325	-1.05400	-.15950	.07986	.04525 150.0000	.01282		
4.500	7.000	.12937	-1.03600	-.16950	.07989	.04524 150.0000	.01268		
4.500	8.000	.13549	-1.01700	-.17950	.07992	.04523 150.0000	.01254		
4.500	9.000	.14161	-99700	-.18950	.07995	.04522 150.0000	.01240		
4.500	10.000	.14773	-97700	-.19950	.07998	.04521 150.0000	.01226		
	GRADIENT	-	.03532		.00017	-	.00017	-	

(181.0000 1.16 MSL 74)

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DATE 29 OCT 74

## AFDC VA-42211A-371, CRUET WORTH 328

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## REFERENCE DATA

XRP = 2800.0000 50.FT.  
 YRP = 1167.0000 IN. 15  
 ZRP = 1290.3000 IN.  
 ZRP = 1290.3000 IN.  
 ZRP = 400.0000 IN. 25  
 SCALE = .0173

## REFERENCE DATA

XRP = 1167.0000 IN. 15  
 YRP = .0000 IN. 15  
 ZRP = 400.0000 IN. 25  
 PT-JET = 1500.0000 ALPA = .0000

## PARAMETRIC DATA

RUN NO.	SUR D	RNL	1.0	GRADIENT INTERVAL = -5.00	5.00
MACH	BETA	ALPHA	CH	CV	CU
4.500	-10.000	-.00914	-1.11300	-.05498	.09225
4.500	-9.000	-.00326	-1.11200	-.03744	.09225
4.500	-8.000	.00269	-1.11150	-.03744	.09225
4.500	-7.000	.01093	-1.12000	-.03203	.09379
4.500	-6.000	.01682	-1.12700	-.04361	.09770
4.500	-5.000	.00764	-1.12970	-.06503	.09771
4.500	-4.000	-.00415	-1.13420	-.06314	.09363
4.500	-3.000	-.01732	-1.13740	-.06429	.09210
4.500	-2.000	-.02192	-1.13950	-.06301	.09743
4.500	-1.000	-.02524	-1.14070	-.06033	.09031
4.500	.000	-.01521	-1.14230	-.05724	.07253
4.500	1.000	-.00435	-1.14270	-.05436	.06939
4.500	2.000	.01156	-1.14295	-.05185	.07170
4.500	3.000	.02772	-1.14290	-.04019	.04991
4.500	4.000	.03735	-1.14330	-.04692	.04203
4.500	5.000	.03732	-1.14350	-.04877	.03710
4.500	6.000	.03383	-1.14350	-.04836	.03138
4.500	7.000	.03035	-1.14350	-.04723	.02477
4.500	8.000	.02326	-1.14250	-.04561	.01262
4.500	9.000	.01770	-1.14150	-.04077	.01234
4.500	10.000	.01248	-1.14150	-.03086	.00724
GRADIENT				.00197	-.00569
					.00000

1ST LOAD

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DATE 19 OCT 74

ADDC VA-422(1A-37) - CIRCUIT WIDTHS

REFERENCE DATA

XMAP = 2000,000 IN. X1, PT.	YMAP = 1167,000 IN. X2
ZMAP = 1200,3000 IN.	YMAP = 1167,000 IN. Y2
ZMAP = 1200,3000 IN.	ZMAP = 400,000 IN. Z2
SCALE = .0100	

PARAMETRIC DATA

GRADIENT INTERVAL = -5.00	5.00							
RUN NO. 31/0 RNL = 1.83	GRADIENT INTERVAL = -5.00							
MACH	ALPHA	BETA	ON	CIN	CY	CYN	PCL	WTL
4.500	-10.000	-.00131	-.10035	-.100674	.03716	.01234	3.16220	.00000
4.500	-9.000	-.00063	-.09291	-.09610	.03672	.01145	3.17400	.00000
4.500	-8.000	.00022	-.08272	-.08770	.03598	.01052	3.13590	.00000
4.500	-7.000	.00101	-.07313	-.07750	.03536	.00961	3.15970	.00000
4.500	-6.000	.00157	-.06442	-.06887	.03552	.00869	3.15070	.00000
4.500	-5.000	.00208	-.05617	-.05947	.03559	.00762	3.15760	.00000
4.500	-4.000	.00263	-.04822	-.05167	.03483	.00721	3.16950	.00000
4.500	-3.000	.00284	-.04114	-.04575	.03346	.00718	3.14210	.00000
4.500	-2.000	.00319	-.03491	-.03956	.03256	.00726	3.17460	.00000
4.500	-1.000	.00357	-.02827	-.03246	.03156	.00715	3.15850	.00000
4.500	.000	.00391	-.02203	-.02663	.03054	.00696	3.11750	.00000
4.500	1.000	.00419	-.01585	-.02027	.02952	.00682	3.16400	.00000
4.500	2.000	.00436	-.01036	-.01402	.02864	.00660	3.09860	.00000
4.500	3.000	.00457	-.00516	-.00876	.02826	.00636	3.10360	.00000
4.500	4.000	.00518	-.00222	-.00514	.02551	.00550	3.09440	.00000
4.500	5.000	.00571	.00184	.00354	.02573	.00497	3.03150	.00000
4.500	6.000	.00649	.00671	.00130	.02951	.00441	3.07770	.00000
4.500	7.000	.01056	.01192	.00196	.04175	.00394	3.00840	.00000
4.500	8.000	.01272	.01764	.00261	.04391	.00347	3.09920	.00000
4.500	9.000	.01321	.02378	.00269	.04613	.00269	3.01320	.00000
4.500	10.000	.01344	.02977	.00356	.04816	.00269	3.03940	.00000
	GRADIENT	.00045	.00582	.0012	.00116	-.00021	-.01050	.00000

(STL.DAT) ( 19 OCT 74 )

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DATE 25 OCT 74

NETDC VI-1021115 : 2017 WAGEN

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SRP	\$ 360,000 50.97.	12RP	\$ 1167,000 IN. 28	L-57B	\$ 2,000	R-57B	\$ 2,000
LREP	\$ 1200,000 IN.	11RP	\$ 1000,000 IN. 15	SRP/C	\$ 2,200	R/L	\$ 1,700
BREP	\$ 1200,000 IN.	2RP	\$ 400,000 IN. 25	PT-JET	\$ .000	ALPHA	\$ .000
SCALE	\$ .0100						

THE BOSTONIAN SOCIETY

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BRUNNEN

DATE 20 OCT 74

## AEDC VA-422(1A-37), GRAYET WOOTH SBD

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(STUDAY) (15 APR 74)

## REFERENCE DATA

SREF	=	2890.0000 SQ.FT.	XRP	=	1167.0000 IN. X5
LREF	=	1290.3500 IN.	YRP	=	.0000 IN. Y5
BREF	=	1290.3500 IN.	ZRP	=	400.0000 IN. Z5
SCALE	=	.0100			

RAN NO. 30/0 RVL = 1.84 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	C1	C4	C7	CT	CTN	PCL	PCL	MTL
4.500	-20.000	.00449	-.52346	-.03172	.29696	.02393	737.43000	.44192		
4.500	-9.000	.00190	-.51841	-.03113	.29666	.02301	737.59000	.44300		
4.500	-8.000	.00384	-.51229	-.03134	.29653	.02216	737.49000	.44266		
4.500	-7.000	.00222	-.50751	-.03156	.29682	.02210	737.61000	.44205		
4.500	-6.000	.00243	-.50284	-.03157	.29647	.02220	737.63000	.44194		
4.500	-5.000	.01044	-.49784	-.03128	.29751	.02243	737.57000	.44237		
4.500	-4.000	.01061	-.49233	-.03064	.29703	.02276	737.74000	.44200		
4.500	-3.000	.01097	-.48704	-.02982	.29617	.02289	737.76000	.44220		
4.500	-2.000	.01125	-.48306	-.02833	.29470	.02268	738.13000	.44220		
4.500	-1.000	.00883	-.48053	-.02643	.29392	.02278	738.37000	.44270		
4.500	.000	.00873	-.47926	-.02592	.29422	.02270	738.19000	.44213		
4.500	1.000	.00900	-.47747	-.02171	.29659	.02213	738.19000	.44272		
4.500	2.000	.01124	-.47405	-.01967	.30036	.02094	738.15000	.44307		
4.500	3.000	.01274	-.47035	-.01784	.30490	.01922	738.36000	.44269		
4.500	4.000	.01393	-.46674	-.01607	.30950	.01733	738.27000	.44250		
4.500	5.000	.01478	-.46272	-.01454	.31510	.01537	738.46000	.44160		
4.500	6.000	.01454	-.45797	-.01294	.31990	.01316	738.47000	.44236		
4.500	7.000	.01420	-.45360	-.01162	.32542	.01102	738.29000	.44265		
4.500	8.000	.01486	-.44830	-.01092	.33135	.00936	738.37000	.44284		
4.500	9.000	.01672	-.44170	-.01086	.33435	.00911	738.46000	.44254		
4.500	10.000	.02237	-.43415	-.01110	.33534	.00914	738.56000	.44221		
	GRADIENT		.00336	.00317	.00162	.00166	.00366	.00391	-.	

DATE 25 OCT 74

AEDC VA-422(1A-97), CR/ET W809M 870

REFERENCE DATA

BREF = 2000.000 90.FT. YRP = 1107.0000 IN. X5  
LRF = 1020.3000 IN. YRP = .0000 IN. 15  
BREF = 1020.3000 IN. ZRP = 400.0000 IN. 25  
SCALE = .0100

PARAMETRIC DATA

L-SPL = 2,000 P-SPL = 2,000  
SPLD8 = 2,200 RVL = 1,700  
PT-JET = 750,000 ALFA = .0000

RUN NO. 25/0 RVL = 1.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	ON	CLN	CT	CIN	CF	PC	HTL
4.500	-10.000	-13562	-.06699	-.03632	.34705	.04468	.711.50200	.44397	
4.500	-9.000	-13242	-.07177	-.03632	.34262	.04146	.711.50200	.44215	
4.500	-8.000	-12930	-.07717	-.03299	.33652	.03869	.711.50200	.44307	
4.500	-7.000	-11988	-.07931	-.03159	.32979	.03529	.711.50200	.44292	
4.500	-6.000	-11136	-.08263	-.02992	.32478	.03276	.711.50200	.44280	
4.500	-5.000	-10325	-.08501	-.02817	.32247	.03036	.711.50200	.44231	
4.500	-4.000	-96358	-.08348	-.02708	.31594	.02837	.711.50200	.44233	
4.500	-3.000	-91107	-.08181	-.02649	.31137	.02632	.711.50200	.44203	
4.500	-2.000	-89392	-.08020	-.02591	.30562	.02463	.711.50200	.44239	
4.500	-1.000	-07916	-.07946	-.02522	.29865	.02357	.711.50200	.44210	
4.500	.000	-07753	-.07824	-.02510	.29279	.02251	.711.50200	.44270	
4.500	1.000	-07926	-.08024	-.02475	.28776	.02182	.711.50200	.44322	
4.500	2.000	-08036	-.08193	-.02458	.28335	.02165	.711.50200	.44238	
4.500	3.000	-08107	-.08286	-.02458	.27890	.02160	.711.50200	.44236	
4.500	4.000	-08312	-.08349	-.02440	.27341	.02154	.711.50200	.44203	
4.500	5.000	-08573	-.08503	-.02413	.26758	.021372	.711.50200	.44249	
4.500	6.000	-08774	-.08624	-.02384	.26207	.021263	.711.50200	.44241	
4.500	7.000	-08835	-.08659	-.02372	.25806	.02122	.711.50200	.44260	
4.500	8.000	-08559	-.08559	-.02337	.25368	.021113	.711.50200	.44251	
4.500	9.000	-08484	-.08620	-.02312	.25058	.021050	.711.50200	.44246	
4.500	10.000	-08497	-.08694	-.02275	.24746	.020953	.711.50200	.44232	
	GRADIENT	.00150	.00073	.00036	-.00354	-.00164	.00191	.00001	

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(18 APR 74.)

DATE 29 OCT 74

AEDC VA-422(1A-37) - CRUISE W/BOTH SRS

PAGE 126

(671063) (16 APR 74)

## REFERENCE DATA

SREF	2000.0000 50.°FT.	XRP	1167.0000 IN. X5
LREF	1250.3000 IN.	YRP	.0000 IN. Y5
SREF	1250.3000 IN.	ZRP	400.0000 IN. Z5
SCALE	.0100		

## PARAMETRIC DATA

RUN NO.	28/0	RVAL = 1.04	GRADIENT INTERVAL = -9.00V 9.00					
MACH	ALPHA	BETA	ON	CLW	CT	CYN	PCL	MTL
4.500	-10.000	.02714	-.97046	-.03744	.56363	.04330	1469.0000	.91046
4.500	-9.000	.03653	-.97221	-.03687	.56313	.04307	1450.3000	.90861
4.500	-8.000	.04750	-.96829	-.03626	.56143	.04234	1450.3000	.91023
4.500	-7.000	.04750	-.95934	-.03523	.55940	.04171	1450.2000	.90892
4.500	-6.000	.04391	-.95260	-.03434	.55752	.04055	1450.2000	.90849
4.500	-5.000	.03990	-.94545	-.03370	.55552	.03946	1450.0000	.91011
4.500	-4.000	.03221	-.93922	-.03295	.55259	.03832	1450.35959	.90859
4.500	-3.000	.02762	-.93441	-.03191	.55051	.03750	1450.50000	.90768
4.500	-2.000	.02385	-.92860	-.03032	.54872	.03747	1451.50000	.91203
4.500	-1.000	.01416	-.92449	-.04792	.54816	.03703	1452.10001	.90932
4.500	.000	.00898	-.92271	-.04495	.54697	.03657	1451.20000	.89763
4.500	1.000	.01176	-.91888	-.04151	.54653	.03557	1457.20000	.90361
4.500	2.000	.02115	-.91693	-.03898	.55016	.03416	1457.70000	.91404
4.500	3.000	.02571	-.91423	-.03683	.55491	.03280	1459.50000	.91473
4.500	4.000	.02251	-.91142	-.03543	.56115	.03213	1452.70000	.91794
4.500	5.000	.02206	-.90638	-.03421	.56493	.03113	1454.00000	.91635
4.500	6.000	.02282	-.90314	-.03303	.57002	.02986	1455.20000	.91541
4.500	7.000	.02328	-.89336	-.03141	.57529	.02816	1455.50000	.91586
4.500	8.000	.02469	-.88536	-.03024	.58024	.02616	1456.00000	.91595
4.500	9.000	.02768	-.87891	-.02927	.58320	.02411	1457.80000	.91544
4.500	10.000	.02964	-.87177	-.02837	.58600	.02229	1458.50000	.91338
	GRADIENT	-.00129	.00364	.00219	.00167	-.00062	.10182	.00073

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PT-JET	1.000.000	R-368	2.000
SP-8806	2.200	RW/L	1.700
L-369	2.000	ALPHIA	1.000

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3

DATE 20 OCT 74

## ADDC VIA-48211A-171, CRUFT WARM 325

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(181091) 10 OCT 74 1

## REFERENCE DATA

BREP = 2000.0000 IN. FT.	ZBREP = 1167.0000 IN. IN.
URP = 1200.0000 IN.	YBREP = .0000 IN. YB
DRP = 1200.0000 IN.	ZBREP = 400.0000 IN. ZB
SCALE = .0100	

## PARAMETRIC DATA

RUN NO.	ZBV D	RNL = 2.25	GRADIENT INTERVAL = -3.000	3.00	CN	CT	CN	CT	POL	HTL
MACH	ALPHA	BETA	CN	CT						
4.500	-10.000	.03250	-.62400	-.04634	.47484	.53776	1493.70000	.51358		
4.500	-9.000	.03302	-.81800	-.04783	.47294	.53676	1493.39999	.51351		
4.500	-8.000	.03311	-.81113	-.04868	.47092	.53535	1493.60001	.51421		
4.500	-7.000	.03314	-.80320	-.04645	.46873	.53456	1493.21000	.51298		
4.500	-6.000	.03232	-.79684	-.04582	.46669	.53326	1493.61001	.51344		
4.500	-5.000	.03148	-.79312	-.04528	.46431	.53242	1493.20000	.51403		
4.500	-4.000	.02233	-.78437	-.04419	.46231	.53169	1493.59999	.51291		
4.500	-3.000	.01959	-.77969	-.04201	.46051	.53063	1493.30000	.51292		
4.500	-2.000	.01481	-.77604	-.04034	.45947	.52963	1493.10001	.51296		
4.500	-1.000	.01449	-.77236	-.03834	.45960	.52852	1493.10001	.51413		
4.500	.000	.01625	-.77123	-.03676	.46138	.52866	1493.70000	.51281		
4.500	1.000	.01617	-.76935	-.03480	.46357	.52953	1493.69999	.51281		
4.500	2.000	.01676	-.76906	-.03260	.46715	.52852	1494.20000	.51450		
4.500	3.000	.01576	-.76450	-.03036	.47077	.52756	1494.00000	.51212		
4.500	4.000	.01635	-.76327	-.02769	.47418	.52646	1493.00000	.51287		
4.500	5.000	.01646	-.75432	-.02591	.47820	.52534	1494.10001	.51353		
4.500	6.000	.02204	-.74823	-.02309	.48244	.52352	1493.00000	.51232		
4.500	7.000	.02464	-.73982	-.02433	.48929	.52127	1492.20000	.51296		
4.500	8.000	.02439	-.73150	-.02364	.49350	.51946	1491.69959	.51127		
4.500	9.000	.02370	-.72896	-.02303	.49619	.51833	1491.50000	.51248		
4.500	10.000	.02593	-.71911	-.02224	.50006	.51712	1491.39999	.51228		
	GRADIENT	-.00072	.00310	.00197	.00151	-.00061	.04546	-.00004		

DATE 29 OCT 74

AEDC VA-4221A-571, OBSET WORTH SRA

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## REFERRAL DATA

SREF = 2800.0000 50.FT. 2000 = 107.0000 1M. X5  
 LREF = 1200.0000 IN. YREF = .0000 IN. Y5  
 ZREF = 1200.0000 IN. ZREF = 000.0000 IN. Z5  
 SCALE = .01000

RUN NO. 2400 RFLV = 2.23 GRADIENT INTERVAL = -3.00/ 3.00

MACH	BETA	ALPHA	QH	QW	CY	CTN	PD.	MTL.
4.500	-10.000	.06936	-.79036	-.04797	.31196	.35531	1.91300	.91137
4.500	-9.000	-.07526	-.79332	-.04846	.30860	.35224	1.90300	.90931
4.500	-8.000	-.07539	-.76014	-.0472	.30105	.35297	1.90300	.91045
4.500	-7.000	-.07030	-.76227	-.0476	.30476	.34938	1.90300	.91000
4.500	-6.000	-.07159	-.76329	-.04831	.30822	.34691	1.90300	.90986
4.500	-5.000	-.07102	-.76348	-.0479	.30301	.34337	1.90300	.91016
4.500	-4.000	-.06893	-.76328	-.04259	.31747	.33956	1.90300	.91056
4.500	-3.000	-.05745	-.76879	-.0201	.47159	.33696	1.90300	.91086
4.500	-2.000	-.04844	-.76825	-.04004	.49537	.33963	1.90300	.91105
4.500	-1.000	-.04539	-.76866	-.03734	.46195	.3362	1.90300	.91003
4.500	.000	-.04741	-.76960	-.03749	.45612	.32919	1.90300	.90996
4.500	1.000	-.05207	-.76774	-.03775	.44666	.32445	1.90300	.91131
4.500	2.000	-.05850	-.76566	-.03732	.41144	.32792	1.90300	.91170
4.500	3.000	-.06502	-.76734	-.03666	.43330	.32682	1.90300	.91022
4.500	4.000	-.06613	-.76959	-.03562	.42647	.32551	1.90300	.91086
4.500	5.000	-.06333	-.77178	-.03496	.42058	.32439	1.90300	.90996
4.500	6.000	-.05976	-.77382	-.03421	.41544	.32313	1.90300	.91171
4.500	7.000	-.05677	-.77580	-.03345	.41157	.32162	1.90300	.91134
4.500	8.000	-.05144	-.77751	-.03277	.40859	.32018	1.90300	.91096
4.500	9.000	-.04643	-.77904	-.03229	.40597	.31867	1.90300	.91044
4.500	10.000	-.04363	-.78097	-.03173	.40293	.31711	1.90300	.90913
GRADIENT		-.00023	-.00042	.00111	-.00530	-.00562	1.90300	.90906

(STL032) ( 16 APR 74 )

## PARAMETRIC DATA

DATE 28 OCT 74

## AEDC VA-422(1A-97), CRUET W/30TH STR

## REFERENCE DATA

SREF = 2600.0000 30.FT. XREF = 1187.0000 IN. X5  
 LREF = 1250.3000 IN. YREF = .0000 IN. Y5  
 BREF = 1250.3000 IN. ZREF = .000.0000 IN. Z5  
 SCALE = .0100

RUN NO. 3800 TAVL = 1.00 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	ON	CW	CT	CIN	CIN	POL
4.490	-10.000	.00138	-1.58690	-.03136	.93534	.01324	1302.89999	.91933
4.490	-9.000	.000902	-1.59070	-.03083	.93046	.01397	1302.00000	.91924
4.490	-8.000	.000843	-1.59250	-.03060	.94011	.02009	1301.80000	.92126
4.490	-7.000	.000943	-1.59010	-.03056	.94056	.02131	1301.20000	.91953
4.490	-3.000	.00771	-1.59920	-.06862	.94135	.02244	1301.30000	.92039
4.490	-5.000	.00777	-1.58670	-.06114	.94118	.02344	1301.00000	.92117
4.490	-4.000	.00856	-1.58383	-.06174	.94079	.02461	1301.10001	.92099
4.490	-3.000	.01030	-1.58193	-.06241	.94038	.02364	1301.89999	.92192
4.490	-2.000	.00414	-1.57690	-.06313	.94031	.02693	1301.30000	.91926
4.490	-1.000	.00034	-1.57070	-.06392	.94092	.02766	1301.00000	.92134
4.490	.000	-.00270	-1.56310	-.06485	.94268	.02792	1301.00000	.92053
4.490	1.000	.00019	-1.55940	-.06552	.94569	.02774	1301.00000	.92209
4.490	2.000	.00302	-1.55393	-.06543	.95011	.02637	1301.60001	.92452
4.490	3.000	.00574	-1.55130	-.06501	.95330	.02532	1301.20000	.92507
4.490	4.000	.01030	-1.54850	-.06379	.96087	.02380	1304.39999	.92424
4.490	5.000	.01171	-1.54620	-.06242	.96593	.02246	1304.50000	.92422
4.490	6.000	.01150	-1.54320	-.06101	.96715	.02161	1304.60001	.92118
4.490	7.000	.01127	-1.54080	-.05956	.96831	.02135	1303.89999	.91746
4.490	8.000	.01911	-1.53760	-.05826	.97109	.02059	1302.89999	.91817
4.490	9.000	.02124	-1.53560	-.05644	.97621	.01888	1302.10001	.91760
4.490	10.000	.02312	-1.53250	-.05439	.98139	.01649	1302.00000	.91933
GRADIENT				.00012	.00446	-.0026	.00269	-.00006
								.34727
								.00031

(107053) ( 16 APR 74 )

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## PARAMETRIC DATA



DATE 29 OCT 74

ANALYST VA-42211A-371, ODETTE WORTH SEE

REFERENCE DATA

REFP = 2000,000 SQ. RT.  
REFP = 11167,0000 N, NS  
REFP = 400,0000 N, 25  
SCALE = 1250,000 IN. 1N.  
SCALE = 1250,000 IN. 1N.

PARAMETRIC DATA

(371055) ( 18 APR 74 )

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L-SSE = 3,000 R-SSE = 3,000  
REFP = 3,300 RAVL = 3,000  
PT-JET = 1500,000 ALPA = 1,000

RNO. 34/0 RNL = 1.49 GRADIENT INTERVAL = -5.00/5.00

MACH	BETA	ALPHA	ON	C4	CR	CYN	PCL	MTL
4.500	-10.000	-1.000	-1.000	-0.000	.70321	.02534	1490,00000	.91932
4.500	-9.000	-1.0445	-1.1300	-0.000	.73584	.02576	1492,50000	.92530
4.500	-8.000	-1.13320	-1.1310	-0.000	.74771	.02596	1493,90000	.92529
4.500	-7.000	-1.20950	-1.18570	-0.000	.74938	.02673	1495,70000	.92435
4.500	-6.000	-0.9574	-1.18760	-0.000	.7394	.02650	1496,50000	.92410
4.500	-5.000	-0.9072	-1.13930	-0.0107	.72798	.02214	1496,30000	.92136
4.500	-4.000	-0.8698	-1.13010	-0.0106	.72297	.02033	1496,50000	.92024
4.500	-3.000	-0.8578	-1.14120	-0.0106	.71463	.02220	1497,50000	.92024
4.500	-2.000	-0.8745	-1.14250	-0.0225	.70368	.02195	1497,50000	.92136
4.500	-1.000	-0.9173	-1.14560	-0.0225	.70119	.02149	1497,50000	.92227
4.500	0.000	-0.9524	-1.14930	-0.0106	.69365	.02066	1496,35636	.92412
4.500	10.000	-0.9346	-1.13110	-0.000	.69167	.01993	1495,20000	.92303
4.500	20.000	-0.9123	-1.15320	-0.000	.68742	.01954	1495,21000	.92436
4.500	30.000	-0.8866	-1.15310	-0.0102	.68263	.01937	1495,30000	.92314
4.500	4.000	-0.9427	-1.15630	-0.0172	.67696	.02014	1495,86999	.92376
4.500	5.000	-0.9162	-1.15630	-0.0269	.67158	.02014	1495,60001	.92395
4.500	6.000	-0.7995	-1.15620	-0.0268	.66167	.01993	1495,20000	.92220
4.500	7.000	-0.7936	-1.15630	-0.0260	.66707	.01954	1495,10000	.92436
4.500	8.000	-0.7917	-1.15630	-0.0260	.66307	.01976	1495,50000	.91939
4.500	9.000	-0.8052	-1.15630	-0.0260	.65932	.01954	1495,30000	.92236
4.500	10.000	-0.8057	-1.15630	-0.0260	.65635	.01950	1495,10000	.92171



DATE 29 OCT 74

AEDC VA-422(1A-37), C92ET W/BOTH S90

REFERENCE DATA

S907 = 2000.0000 SF.FT.  
L907 = 1220.0000 IN.  
S907 = 1825.0000 IN.  
SCALE = .0100

S908 = 1167.0000 IN. X  
Y908 = 5000 IN. Y  
Z908 = 400.0000 IN. ZS

STUDIOS (198 MM TA)

PARAMETRIC DATA

L-300 = 3.000 R-300 = 3.000  
S909 = 3.300 R909 = 1.700  
PT-JET = 300.000 BETA = 300.

RUN NO. 390 0 RVAL = 1.04 GRADIENT INTERVAL = -3.00V 3.00

MACH	ALPHA	BETA	CH	CLH	CV	CTH	PL	MTL
4.500	-10.000	-.00418	-14879	-.00325	.07936	.00470	.02924	.00000
4.500	-9.000	-.00326	-13762	-.00325	.07946	.00470	.02924	.00000
4.500	-8.000	-.00225	-12860	-.00325	.07956	.00470	.02924	.00000
4.500	-7.000	-.00117	-11582	-.00374	.07966	.00470	.02924	.00000
4.500	-6.000	-.00044	-10101	-.00429	.07974	.00470	.02924	.00000
4.500	-5.000	-.00010	-9291	-.00471	.07986	.00470	.02924	.00000
4.500	-4.000	.00136	-80616	-.00512	.07996	.00470	.02924	.00000
4.500	-3.000	.00219	-70830	-.00553	.08005	.00470	.02924	.00000
4.500	-2.000	.00320	-60646	-.00601	.08014	.00470	.02924	.00000
4.500	-1.000	.00425	-50972	-.00636	.08023	.00470	.02924	.00000
4.500	0.000	.00457	-50389	-.00655	.08032	.00470	.02924	.00000
4.500	1.000	.00531	-40479	-.00674	.08041	.00470	.02924	.00000
4.500	2.000	.00592	-30374	-.00692	.08050	.00470	.02924	.00000
4.500	3.000	.00637	-20476	-.00703	.08059	.00470	.02924	.00000
4.500	4.000	.00754	-10296	-.00713	.08068	.00470	.02924	.00000
4.500	5.000	.00932	-12348	-.00716	.08076	.00470	.02924	.00000
4.500	6.000	.01078	-11692	-.00728	.08085	.00470	.02924	.00000
4.500	7.000	.01303	-101376	-.00735	.08093	.00470	.02924	.00000
4.500	8.000	.01569	-80834	-.00741	.08102	.00470	.02924	.00000
4.500	9.000	.01564	-60504	-.00742	.08111	.00470	.02924	.00000
4.500	10.000	.01691	-50332	-.00743	.08119	.00470	.02924	.00000
	GRADIENT	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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DATE 29 OCT 74

## ADDC VA-42211A-571. CRVET W/OTH 203

## REFERENCE DATA

REFP	=	2000.0000 50.01.
LREF	=	1250.0000 IN.
BREF	=	1250.0000 IN.
SCALE	=	.0100

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G71300 (10 APR 74)

## PARAMETRIC DATA

L-500	=	3.000 R-500
STOCH	=	3.300 SWL
PT-JET	=	750.000 BETA

RUN NO. 50/0 RFL = 1.04 GRADIENT INTERVAL = -3.00 3.00

WIND	ALPHA	BETA	CN	CLH	CT	CTH	PCL	PTL	MTL
4.500	-10.000	-.00417	-.54216	-.03116	.35353	.01794	.750.0000	.44302	
4.500	-9.000	-.00313	-.53460	-.03193	.35084	.01839	.750.1700	.44303	
4.500	-8.000	-.00214	-.52563	-.03196	.35353	.01886	.750.4600	.44303	
4.500	-7.000	-.00137	-.52172	-.03219	.35226	.01929	.750.5300	.44304	
4.500	-6.000	-.00079	-.51538	-.03246	.35162	.01957	.750.4700	.44302	
4.500	-5.000	-.00040	-.50853	-.03303	.35133	.02036	.750.2100	.44321	
4.500	-4.000	-.00103	-.50393	-.03339	.35146	.01982	.750.9000	.44322	
4.500	-3.000	-.00164	-.50014	-.03301	.35257	.01950	.750.8500	.44311	
4.500	-2.000	-.00189	-.49576	-.03229	.35428	.01924	.750.6200	.44354	
4.500	-1.000	-.00231	-.49173	-.03124	.35669	.01375	.750.7500	.44272	
4.500	.000	-.00267	-.48775	-.03014	.35939	.01720	.750.8000	.44334	
4.500	1.000	-.00130	-.48371	-.02689	.31279	.01680	.750.4500	.44334	
4.500	2.000	-.00147	-.43071	-.02731	.31561	.01588	.750.5700	.44336	
4.500	3.000	-.00162	-.47798	-.02580	.31082	.01488	.750.5100	.44334	
4.500	4.000	-.00175	-.47539	-.02411	.32177	.01363	.750.1600	.44334	
4.500	5.000	-.00168	-.41279	-.02236	.32376	.01265	.750.2300	.44325	
4.500	6.000	-.00172	-.45843	-.02093	.32553	.01220	.750.1700	.44331	
4.500	7.000	-.00178	-.46602	-.01943	.32639	.01199	.750.0800	.44343	
4.500	8.000	-.00179	-.46276	-.01803	.32726	.01195	.750.1200	.44322	
4.500	9.000	-.00177	-.45912	-.01664	.32616	.01251	.750.1900	.44324	
4.500	10.000	-.00173	-.45501	-.01487	.32603	.01325	.750.1500	.44224	
	GRADIENT	.00036	.00113	.00247	-.00076	-.00461	-.00033		

DATE 29 OCT 74

## AEDC VA-422(1A-37) - CAVET W/ BOTH SRB

PAGE 24

(181059) ( 18 APR 74 )

## REFERENCE DATA

SREF = 2800.0000 SR, PT.  
 LREF = 1250.3000 IN.  
 SREZ = 1250.3000 IN.  
 SCALE = .0100.

## REFERENCE DATA

SREF = 2800.0000 SR, PT.  
 LREF = 1250.3000 IN.  
 SREZ = 1250.3000 IN.  
 SCALE = .0100.

RIN NO. 3DV 0 RNL = 1.84 GRADIENT INTERVAL = -.500 5.00

MACH	BETA	ALPHA	CN	CLW	CT	CTN	POL	MTL
4.500	-10.000	-.22161	-.49333	-.02331	.42146	.00091	742.77000	.44511
4.500	-9.000	-.21738	-.49202	-.02306	.41053	.00148	742.89000	.44509
4.500	-8.000	-.21313	-.49200	-.02744	.39795	.00333	742.83000	.44492
4.500	-7.000	-.20758	-.49231	-.02616	.38354	.00672	742.79000	.44479
4.500	-6.000	-.20212	-.49323	-.02335	.36957	.00965	742.76000	.44457
4.500	-5.000	-.19675	-.49408	-.02609	.35767	.01236	742.89000	.44457
4.500	-4.000	-.19105	-.49389	-.03006	.34647	.01438	742.83000	.44456
4.500	-3.000	-.19096	-.49343	-.03075	.33669	.01889	742.89000	.44459
4.500	-2.000	-.18622	-.49766	-.03117	.32681	.01720	742.72000	.44461
4.500	-1.000	-.18277	-.49035	-.03110	.31652	.01826	742.71000	.44463
4.500	.000	-.18085	-.49231	-.03063	.30750	.01910	742.75000	.44452
4.500	1.000	-.17813	-.49400	-.03050	.30248	.01944	742.71000	.44479
4.500	2.000	-.17746	-.49317	-.03055	.29532	.01932	742.71000	.44436
4.500	3.000	-.17674	-.49699	-.03116	.29237	.01811	742.62000	.44464
4.500	4.000	-.17576	-.49112	-.03134	.28828	.01720	742.48000	.44476
4.500	5.000	-.18164	-.49334	-.03077	.28195	.01650	742.35000	.44522
4.500	6.000	-.18263	-.49334	-.03026	.27659	.01527	742.24000	.44515
4.500	7.000	-.18354	-.49336	-.02956	.27526	.01367	742.30000	.44533
4.500	8.000	-.18473	-.49687	-.02919	.27071	.01248	742.08000	.44533
4.500	9.000	-.18676	-.50010	-.02753	.26759	.01145	742.16000	.44491
4.500	10.000	-.19254	-.50312	-.02557	.26342	.01087	742.30000	.44450
	GRADIENT	.00167	-.00097	-.00012	-.00746	.00040	-.02039	-.00003

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DATE 22 OCT 74

## AEDC VA-422(IA-37), CRIBET WORTH SITE

## REFERENCE DATA

SREF = 2880.0000 SQ.FT.  
 LREF = 1290.3000 IN.  
 BREF = 1290.3000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

L-388 = 3.000  
 SREF = 3.300  
 PT-JET = 1500.000  
 BETA = .000

(STL900) 1 18 APR 74 1  
 PAGE 130

DATE 29 OCT 74

## ADC VA-422(1A-57) - CRVET WARTH STR

## REFERENCE DATA

BREF = 2800.0000 SR.FT.  
 UREF = 1290.3000 IN.  
 SREF = 1290.3000 IN.  
 SCALE = .0100

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(STL001) ( 18 APR 74 )

## PARAMETRIC DATA

XRP = 147.0000 IN. X2  
 YRP = .0000 IN. Y2  
 ZRP = 400.0000 IN. Z2  
 L-378 = 5.000 R-378 = 3.000  
 SRPOS = 3.300 RFL = 1.750  
 PT-JET = 1000.000 ALPHA = .0000

RPN NO. 48/0 RFL = 1.85 GRADIENT INTERVAL = -5.00 5.00

MACH	BETA	ALPHA	CN	CLW	CT	CN	CL	MTL
4.500	-10.000	-.17219	-.93528	-.04113	.68945	.01835	1592.70000	.92165
4.500	-9.000	-.16620	-.93426	-.04213	.64790	.01879	1592.70000	.92265
4.500	-8.000	-.16039	-.93320	-.04314	.63737	.01968	1592.60000	.92363
4.500	-7.000	-.15923	-.93370	-.04369	.62803	.01995	1592.60000	.92314
4.500	-6.000	-.15733	-.93425	-.04420	.62051	.01961	1592.60000	.92220
4.500	-5.000	-.15298	-.93532	-.04498	.61512	.01897	1591.39995	.92172
4.500	-4.000	-.15096	-.93705	-.04695	.60892	.01713	1571.20000	.92449
4.500	-3.000	-.14795	-.93744	-.04864	.60168	.01697	1570.69999	.92261
4.500	-2.000	-.14497	-.93796	-.04836	.59313	.01717	1570.20000	.92224
4.500	-1.000	-.14298	-.93958	-.04574	.58495	.01737	1570.30000	.92223
4.500	.000	-.14113	-.94000	-.04519	.57787	.01777	1570.30000	.92226
4.500	1.000	-.14092	-.94274	-.04668	.57104	.01796	1499.69999	.92292
4.500	2.000	-.14729	-.94483	-.04467	.58482	.01843	1570.30000	.92077
4.500	3.000	-.14629	-.94502	-.04534	.55888	.01885	1499.69991	.92342
4.500	4.000	-.14694	-.94490	-.04512	.55348	.01920	1499.30000	.92291
4.500	5.000	-.14798	-.94526	-.04672	.54621	.01959	1499.30000	.92165
4.500	6.000	-.14590	-.94565	-.04574	.54336	.01854	1499.30000	.92134
4.500	7.000	-.14218	-.94642	-.04647	.53992	.01735	1499.10001	.92231
4.500	8.000	-.14003	-.94793	-.04376	.53533	.01638	1499.60003	.92316
4.500	9.000	-.13624	-.94916	-.04484	.53277	.01591	1570.39999	.92286
4.500	10.000	-.13622	-.95179	-.04354	.52503	.01524	1570.10001	.91591
4.500	GRADIENT	.00025	-.00105	-.00012	-.00068	.00021	-.20364	-.00006

DATE 20 OCT 74

## AEDC VA-422(IA-57), OBSET W/ BOTH SBS

## REFERENCE DATA

SREF = 2800.0000 SQ.FT.    XREF = 1167.0000 IN. X5  
 LREF = 1200.3000 IN.    YREF = .0000 IN. Y5  
 DREF = 1200.3000 IN.    ZREF = 400.0000 IN. Z5  
 SCALE = .0000

RUN NO. 4400 GRADIENT INTERVAL = -3.00, 5.00

MACH	ALPHA	BETA	ON	CW	CR	CN	PC	MTL
4.510	-10.000	.00111	-.83951	-.04370	.48944	.01851	1490.30000	.93136
4.510	-9.000	.00168	-.83454	-.04257	.48952	.01855	1490.30000	.93136
4.510	-8.000	.00222	-.83015	-.04226	.48753	.01872	1499.80000	.93136
4.510	-7.000	.00196	-.82333	-.04179	.48661	.01851	1499.80000	.93136
4.510	-6.000	.00132	-.82054	-.04063	.48502	.01852	1499.80000	.93136
4.510	-5.000	.00046	-.81565	-.04015	.48376	.01867	1499.80000	.93136
4.510	-4.000	.00017	-.81022	-.03972	.48356	.01860	1499.80000	.93136
4.510	-3.000	.00104	-.80463	-.03945	.48393	.01823	1499.80000	.93220
4.510	-2.000	.00136	-.79736	-.03968	.48450	.01821	1499.80000	.93220
4.510	-1.000	.00396	-.78976	-.04055	.48741	.01773	1499.80000	.93196
4.510	.000	.00379	-.78319	-.04117	.49174	.01577	1499.80000	.93212
4.510	1.000	.00219	-.78022	-.04077	.49684	.01384	1499.36999	.93346
4.510	2.000	.00110	-.77888	-.03950	.50193	.01221	1490.36999	.93393
4.510	3.000	.00260	-.77614	-.03903	.50457	.01026	1491.36999	.93225
4.510	4.000	-.00045	-.77344	-.03630	.51229	.00836	1491.10001	.93215
4.510	5.000	-.00396	-.77131	-.03655	.51616	.00691	1491.50000	.93136
4.510	6.000	-.02059	-.76944	-.03137	.51875	.00534	1490.36999	.93136
4.510	7.000	-.02223	-.76723	-.02894	.52035	.00459	1499.86999	.93070
4.510	8.000	-.02541	-.76576	-.02646	.52054	.00562	1490.20000	.93216
4.510	9.000	-.02869	-.76299	-.02400	.51893	.00620	1490.50000	.93582
4.510	10.000	-.03296	-.75918	-.02201	.51535	.01059	1493.50000	.93141
		GRADIENT				-.0012	24.55	.00001
						.00355		

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(ISTL062) ( 16 APR 74 )

## PARAMETRIC DATA

DATE 29 OCT 74

REFERENCE DATA

SREF = 2000,0000 SA,FT.  
UREP = 1200,3000 IN.  
UREP = 1200,3000 IN.  
UREP = 1200,3000 IN.  
SCALE = .0100

AEDC VIA-42211A-55, CRVET W/BOTH SRE

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(16 APR 74)

PARAMETRIC DATA

L-SRF = 3.000  
SRBOS = 3.300  
R-SRF = 3.000  
R/L = 2.000  
ALPHA = .000

RUN NO. 49/0 RVL = 2.03 GRADIENT INTERVAL = -3.00/ 5.00

MACH	BETA	ALPHA	CN	CLW	CT	CY	CPN	PL	MTL
4.510	-10.000	-23790	-.77913	-.03947	.57279	.01369	1496.00001	.93029	
4.510	-9.000	-23532	-.77903	-.03690	.96393	.01369	1498.39999	.93012	
4.510	-8.000	-24927	-.77761	-.03761	.55394	.01426	1499.20000	.93023	
4.510	-7.000	-24033	-.77774	-.03894	.54370	.01352	1499.60001	.92569	
4.510	-6.000	-23099	-.77928	-.03912	.53654	.01491	1500.30000	.92501	
4.510	-5.000	-22150	-.78142	-.03889	.53549	.01403	1501.80000	.93113	
4.510	-4.000	-21288	-.78256	-.03947	.52351	.01379	1502.39999	.92800	
4.510	-3.000	-20745	-.78266	-.04049	.51479	.01432	1502.00000	.92776	
4.510	-2.000	-20436	-.78357	-.04117	.50460	.01352	1501.70000	.92712	
4.510	-1.000	-20577	-.78359	-.04113	.49324	.01690	1502.00000	.92945	
4.510	.000	-20666	-.78748	-.04071	.48650	.01769	1502.10000	.92536	
4.510	1.000	-20773	-.78634	-.04063	.47937	.01693	1502.00000	.92527	
4.510	2.000	-21179	-.78935	-.04093	.47193	.01956	1502.10000	.92853	
4.510	3.000	-22429	-.79008	-.04152	.46334	.02026	1502.00000	.92877	
4.510	4.000	-22213	-.79125	-.04170	.45946	.02015	1502.20000	.92228	
4.510	5.000	-21440	-.79217	-.04179	.45533	.01956	1502.50000	.92392	
4.510	6.000	-21193	-.79272	-.04157	.45049	.01924	1502.70000	.93032	
4.510	7.000	-20720	-.79396	-.04117	.44845	.01777	1504.00000	.93074	
4.510	8.000	-20715	-.79596	-.04059	.44580	.01692	1504.39999	.92805	
4.510	9.000	-20370	-.79826	-.03915	.44061	.01619	1505.00000	.93102	
4.510	10.000	-21276	-.80167	-.03763	.43297	.01660	1505.39999	.92514	
GRADIENT		-.00071	-.00113	-.00123	-.00763	.00073	.03162	-.00003	

DATE 25 OCT 74

AEDC VIA-422(IA-37), CR8/ET W/OTH SRS

REFERENCE DATA

SREF =	2000.0000 SQ.FT.	XRP =	1167.0000 IN. X5
LREF =	1200.3000 IN.	YRP =	.0000 IN. Y5
BREF =	1230.3000 IN.	ZRP =	400.0000 IN. Z5
SCALE =	.01000		

RUN NO. 20/0 RNL = 1.07 GRADIENT INTERVAL = -3.DIV 5.00

MACH	ALPHA	BETA	ON	CLW	CY	CYN	PCL	ML
4.500	-10.000	-.02639	-10.059	-.00604	.00603	.01226	-.16276	.00000
4.500	-9.007	-.02506	-.09493	-.00750	.03726	.01136	-.16376	.00000
4.500	-8.000	-.02368	-.08482	-.00686	.03716	.01022	-.15946	.00000
4.500	-7.000	-.02277	-.07352	-.00646	.03667	.00939	-.16376	.00000
4.500	-6.000	-.02153	-.06334	-.00622	.03631	.00819	-.16376	.00000
4.500	-5.000	-.02061	-.05751	-.00595	.03645	.00752	-.16376	.00000
4.500	-4.000	-.01969	-.04931	-.00570	.03575	.00719	-.16210	.00000
4.500	-3.000	-.01936	-.04151	-.00533	.03517	.00699	-.16376	.00000
4.500	-2.000	-.01943	-.03464	-.00484	.03434	.00672	-.16376	.00000
4.500	-1.000	-.01975	-.02792	-.00427	.03412	.00559	-.16376	.00000
4.500	.000	-.02032	-.02212	-.00372	.03416	.00560	-.16376	.00000
4.500	1.000	-.02050	-.01615	-.00315	.03485	.00526	-.16376	.00000
4.500	2.000	-.02058	-.01157	-.00202	.03540	.00513	-.14211	.00000
4.500	3.000	-.02011	-.00693	-.00067	.03603	.00562	-.16376	.00000
4.500	4.000	-.02037	-.00276	-.00013	.03726	.00456	-.16322	.00000
4.500	5.000	-.02106	.00153	.00053	.03549	.00418	-.17333	.00000
4.500	6.000	-.02220	.00526	.00112	.04216	.00318	-.19146	.00000
4.500	7.000	-.02362	.01135	.00192	.04316	.00243	-.17941	.00000
4.500	8.000	-.02290	.01701	.00236	.04714	.00207	-.19408	.00000
4.500	9.000	-.02333	.02272	.00269	.05030	.00132	-.16376	.00000
4.500	10.000	-.02349	.02963	.00337	.05239	.00061	-.16376	.00000
	GRADIENT			.00058	.00028	-.00028	.00067	.00000

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(15 APR 74)

PARAMETRIC DATA

L-SITE =	1.000	R-SITE =	2.000
SITES =	1.200	R/VL =	1.750
PI-JET =	.000	BETA =	.000

DATE 20 OCT 74

ADC VA-422(1A-97), CRAYET W/ BOTH SENS

## REFERENCE DATA

REFP = 2000.0000 28.1FT. 100P = 117.0000 IN. X8  
 LREF = 1250.3000 IN. YREF = .0000 IN. Y8  
 SREF = 1250.3000 IN. ZREF = 400.0000 IN. Z8  
 SCALE = .0100

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(181003) (18 APR 74)

## PARAMETRIC DATA

L-REF = 1.000 R-REF = 1.000  
 SREF = 1.250 RFLV = 1.250  
 PT-J-ET = .000 ALT-HI = .000

ROW NO.	21 / 0	RFLV = 1.07	GRADIENT INTERVAL = -5.00
MACH	BETA	ALPHA	CN
4.500	-10.000	-.14133	-.01800
4.500	-9.000	-.13532	-.02046
4.500	-8.000	-.12994	-.02279
4.500	-7.000	-.12292	-.02507
4.500	-6.000	-.11659	-.02815
4.500	-5.000	-.11163	-.03226
4.500	-4.000	-.10850	-.03528
4.500	-3.000	-.10511	-.02832
4.500	-2.000	-.10100	-.02645
4.500	-1.000	-.09892	-.02869
4.500	.000	-.09537	-.02699
4.500	1.000	-.09193	-.02735
4.500	2.000	-.08936	-.02607
4.500	3.000	-.08757	-.02910
4.500	4.000	-.08592	-.03058
4.500	5.000	-.08430	-.03270
4.500	6.000	-.08264	-.03406
4.500	7.000	-.08099	-.03536
4.500	8.000	-.08735	-.03767
4.500	9.000	-.08576	-.03624
4.500	10.000	-.08872	-.04091
GRADIENT		-.00034	-.00043
		-.00275	-.00287
			-.00132
			-.00026

CLW	CY	CTN	PCW	MTL
-.000701	.00015	.00025	-.34500	.00000
-.000881	.07649	.01693	-.35800	.00000
-.00644	.07110	.01876	-.35437	.00000
-.00534	.06817	.01698	-.53191	.00000
-.00372	.06103	.01559	-.45262	.00000
-.00529	.05616	.01393	-.52642	.00000
-.00475	.05173	.01213	-.48059	.00000
-.00427	.04695	.01049	-.34763	.00000
-.00411	.04237	.00919	-.55800	.00000
-.00386	.03812	.00766	-.53729	.00000
-.00370	.03353	.00569	-.55800	.00000
-.00352	.02863	.00446	-.55000	.00000
-.00222	.02245	.00403	-.53030	.00000
-.00212	.02119	.00272	-.51932	.00000
-.00140	.01761	.00148	-.48698	.00000
-.00041	.01369	.00045	-.54723	.00000
-.00036	.00958	.00073	-.55800	.00000
-.00035	.00912	.00163	-.54767	.00000
-.00027	.00032	-.00275	-.55800	.00000
-.00023	.00000	-.00386	-.55220	.00000
-.00014	-.00000	-.00500	-.53387	.00000
-.00013	-.00027	-.00132	-.00026	.00000

REFUGEE DATA  
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L-<sub>500</sub> = 1,000 R-<sub>500</sub> = 2,000  
PARAMETRIC DATA

RUN NO.	10^6 D	RVAL =	1.88	GRADIENT INTERVAL =	-5.00		5.00	
					CW	CH	CLW	CH
MACH1	ALPHA	.09138	-.92398	-.02913	.28281	.02514	744.42000	.44532
	BETA	.09064	-.91871	-.02923	.28281	.02520	744.30000	.44490
		.09031	-.91214	-.02948	.28273	.02541	744.24000	.44512
		.09026	-.90595	-.02973	.28222	.02573	744.47000	.44593
		.09024	-.90122	-.02957	.28189	.02598	744.68000	.44556
		.09020	-.89898	-.02928	.28136	.02613	744.76000	.44593
		.09016	-.89536	-.02913	.28032	.02643	744.98000	.44593
		.09010	-.89358	-.02871	.28024	.02661	745.17000	.44584
		.09004	-.89050	-.02787	.27934	.02654	744.98000	.44436
		.09001	-.88641	-.02671	.27924	.02477	745.32000	.44536
		.08994	-.88064	-.02536	.27920	.02477	745.09000	.44537
		.08987	-.87938	-.02250	.28018	.02477	745.09000	.44538
		.08980	-.87632	-.02083	.28022	.02411	745.26000	.44538
		.08973	-.87530	-.01881	.28060	.02299	745.26000	.44518
		.08970	-.87450	-.01750	.28022	.02198	745.11000	.44608
		.08964	-.87370	-.01577	.28039	.02131	745.03000	.44607
		.08960	-.87300	-.01470	.28039	.02131	745.03000	.44593
		.08956	-.87230	-.01389	.28142	.02076	745.15000	.44593
		.08953	-.87150	-.01327	.28142	.02036	745.25000	.44537
		.08950	-.87070	-.01279	.28119	.02112	745.25000	.44653
		.08946	-.86990	-.01244	.28106	.02173	.01469	.44585
		.08943	-.86915	-.01201	.28106	.02173	.01394	.44553
		.08939	-.86830	-.01173	.28106	.02173	.01357	.44631

MECHANISMS OF DISEASE

DATE 20 OCT 74

AEDC VA-422(1A-37), CRVET WARTH 36

## REFERENCE DATA

SHP = 2800.0000 SQ.FT. DSHP = 1167.0000 IN. X5  
 LREF = 1250.3000 IN. YREF = .0000 IN. Y5  
 RREF = 1250.3000 IN. ZREF = .0000 IN. Z5  
 SCALE = .0100

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(371,507) 118 APR 74 )

## PARAMETRIC DATA

L-3510 = 1.000 R-3510 = 2.000  
 SRPOS = 1.200 RVEL = 1.750  
 PT-JET = 750.0000 ALPHA = .0000

RUN NO.	C7/ J	RVEL = 1.00	GRADIENT INTERVAL = -3.000 3.00
MACH	SETA	ALPHA	Q1
4.500	-10.000	-.16149	-.05152
4.500	-9.000	-.15318	-.05205
4.500	-8.000	-.15153	-.05292
4.500	-7.000	-.14985	-.05969
4.500	-6.000	-.14160	-.09385
4.500	-5.000	-.13819	-.49241
4.500	-4.000	-.13629	-.48967
4.500	-3.000	-.13523	-.48930
4.500	-2.000	-.13559	-.48653
4.500	-1.000	-.13639	-.48735
4.500	.000	-.14999	-.48503
4.500	1.000	-.15250	-.48416
4.500	2.000	-.15311	-.48540
4.500	3.000	-.16286	-.48624
4.500	4.000	-.17023	-.48766
4.500	5.000	-.17676	-.48859
4.500	6.000	-.18280	-.48933
4.500	7.000	-.18899	-.49036
4.500	8.000	-.19421	-.49263
4.500	9.000	-.20024	-.49479
4.500	10.000	-.20956	-.49712
GRADIENT	-.00419	.00033	.00027
			-.00442
			-.00136
			.03635
			-.00000

MTL

PCL

CTN

C7

DLH

C1

PC1

PCL

MTL

C7

CTN

C1

DLH

C7

PC1

MTL

C7

CTN

DATE 29 OCT 74

## ANALYST VA-422(1A-37). CRUET W/8011 SRS

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## REFERENCE DATA

SREF = 2800,0000 SQ.FT. XRP = 1167,0000 IN. XS  
 UREF = 1200,3000 IN. YRP = .0000 IN. YS  
 EREF = 1200,3000 IN. ZRP = 400,0000 IN. ZS  
 SCALE = .0100

## PARAMETRIC DATA

L-SRP = 1,000 R-SRP = 2,000  
 SRDP = 1,200 RVL = 1,700  
 PT-JET = 1500,000 BETA = .000

RUN NO. 18/0 RVL = 1.87 GRADIENT INTERVAL = -.9.000 .9.000

MACH	ALPHA	BETA	ON	OFF	C1	CTN	PCL	HTL
4.500	-10.000	.23986	-.96428	-.00033	.54918	.04961	1522,00000	.92493
4.500	-9.000	.23973	-.97953	-.00033	.54905	.04950	1522,10001	.92496
4.500	-8.000	.23961	-.97507	-.00033	.54946	.04942	1522,20000	.92500
4.500	-7.000	.23953	-.97013	-.00033	.54950	.04938	1523,10001	.92503
4.500	-6.000	.23947	-.96421	-.00033	.54959	.04930	1522,80000	.92503
4.500	-5.000	.23945	-.95779	-.00033	.53924	.03985	1522,89999	.92529
4.500	-4.000	.22231	-.95235	-.00033	.53697	.03951	1522,70000	.92537
4.500	-3.000	.22231	-.94789	-.00033	.53574	.03933	1522,50000	.92516
4.500	-2.000	.22264	-.94325	-.00033	.53490	.03902	1523,00000	.92593
4.500	-1.000	.22329	-.93869	-.00033	.53525	.03868	1523,39999	.92576
4.500	.000	.22798	-.93410	-.00033	.53579	.03818	1523,30000	.92441
4.500	1.000	.23122	-.93059	-.00033	.53523	.03768	1523,80000	.92446
4.500	2.000	.23506	-.92657	-.00033	.53823	.03699	1524,10000	.92335
4.500	3.000	.23246	-.92353	-.00033	.54253	.03623	1525,30000	.92393
4.500	4.000	.22521	-.91924	-.00033	.54710	.03555	1525,20000	.92709
4.500	5.000	.21377	-.91469	-.00033	.55042	.03531	1526,30000	.92735
4.500	6.000	.20020	-.90972	-.00033	.55442	.03517	1526,50000	.92701
4.500	7.000	.18796	-.90341	-.00033	.55722	.03451	1526,10001	.92506
4.500	8.000	.17903	-.89698	-.00033	.56068	.03361	1525,70000	.92457
4.500	9.000	.17131	-.89131	-.00033	.56460	.03194	1525,50000	.92616
4.500	10.000	.16545	-.88700	-.00033	.56966	.03076	1525,39999	.92686
	GRADIENT		-.00012	.00422	.00114	-.00047	.34345	.00020

(87000) ( 10 APR 74 )

DATE 26 OCT 74

AEDC VA-22211A-571, ORBIT WORM SRB

## REFERENCE DATA

SREF = 2000.000 SQ.FT. XARP = 1097.0000 IN. XS  
 LREF = 1290.3000 IN. YARP = .0000 IN. YS  
 BREF = 1290.3000 IN. ZARP = 400.0000 IN. ZS  
 SCALE = .01000

RUN NO. 18/0 RVAL = 1.86 GRADIENT INTERVAL = -5.00 5.00

MACH	BETA	ALPHA	CN	CLW	CY	CIN	PCL	HTL
4.500	-10.000	.21058	-.31431	-.03941	.56359	.05159	1515.0000	.92922
4.500	-9.000	.21237	.31779	-.05953	.56253	.05169	1515.0000	.92461
4.500	-8.000	.21637	-.92036	-.06533	.57950	.05186	1514.20000	.92701
4.500	-7.000	.22752	-.92319	-.0514	.57671	.05106	1514.00000	.92693
4.500	-6.000	.23838	-.92896	-.05269	.57329	.04967	1513.80000	.92624
4.500	-5.000	.24643	-.93125	-.0385	.56933	.04867	1513.70000	.92590
4.500	-4.000	.24774	-.93206	-.03600	.56270	.04657	1514.36999	.92545
4.500	-3.000	.24875	-.93259	-.04690	.55499	.04433	1513.70000	.92604
4.500	-2.000	.24976	-.93371	-.04371	.54673	.04222	1514.20000	.92571
4.500	.0000	.2495000	-.93416	-.0423	.53916	.03697	1514.10001	.92460
4.500	1.000	.23967	-.93263	-.0363	.52712	.03451	1513.80000	.92874
4.500	2.000	.23948	-.93476	-.04032	.52462	.03303	1515.00000	.92846
4.500	3.000	.26054	-.93675	-.04226	.52036	.03173	1515.50000	.92561
4.500	4.000	.26401	-.93815	-.0394	.51406	.03021	1515.70000	.92746
4.500	5.000	.27000	-.93963	-.03692	.50726	.02810	1515.50000	.92598
4.500	6.000	.27335	-.94064	-.0384	.50156	.02703	1515.50000	.92784
4.500	7.000	.26940	-.94210	-.03610	.49721	.02539	1515.50000	.92721
4.500	8.000	.26071	-.94376	-.03750	.49326	.02383	1515.50000	.92607
4.500	9.000	.25981	-.94557	-.03633	.49000	.02233	1515.50000	.92723
4.500	10.000	.26438	-.94685	-.03510	.48659	.02064	1516.20000	.92696
	GRADIENT	.00014	-.00073	.00140	-.00604	-.00206	.0070	.00000

(STL000) ( 18 APR 74 )

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## PARAMETRIC DATA

L-SRFB = 1.000 SRPOS = 1.200 R-SRFB = 2.000  
 SRJET = 1500.000 ALPHA = 1.760  
 PT-JET = 1500.000 ALPHA = .0000

DATE 20 OCT 74

ADDC VI-422(1A-97), CRSET WORTH 378

## REFERENCE DATA

XREF = 2000.0000 80.17. YREF = 1107.0000 1N. X5  
 UREF = 1250.3000 1N. YREF = .0000 1N. Y5  
 GREF = 1250.3000 1N. ZREF = 400.0000 1N. Z5  
 SCALE = .0000

RUN NO. 360-3 RFLV = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CX	CY	CZ	CW	CF	CL	CM	CD	CLL
4.500	-10.0003	.030060	-.07111	-.01117	.02941	.00578	.00578	-1.12350	.00000	.00000	
4.500	-9.0000	.03032	-.06415	-.00961	.02232	.00312	.00312	-1.09930	.00000	.00000	
4.500	-8.0000	.02983	-.05762	-.00816	.01945	.00448	.00448	-1.10860	.00000	.00000	
4.500	-7.0000	.02930	-.05146	-.00660	.01694	.00694	.00694	-1.14550	.00000	.00000	
4.500	-6.0000	.02892	-.04569	-.00515	.01364	.00359	.00359	-1.10310	.00000	.00000	
4.500	-5.0000	.02861	-.03931	-.00414	.00914	.00337	.00337	-1.11830	.00000	.00000	
4.500	-4.0000	.02768	-.03227	-.00295	.00559	.00336	.00336	-1.14570	.00000	.00000	
4.500	-3.0000	.02782	-.02536	-.00157	.00351	.00412	.00412	-1.10910	.00000	.00000	
4.500	-2.0000	.02646	-.02146	-.00034	.00416	.00324	.00324	-1.13320	.00000	.00000	
4.500	-1.0000	.02920	-.01647	.00102	.00812	.00634	.00634	-1.10750	.00000	.00000	
4.500	.0000	.02977	-.01355	.00242	.01037	.00736	.00736	-1.13320	.00000	.00000	
4.500	1.000	.03068	-.00964	.00391	.01162	.00796	.00796	-1.11770	.00000	.00000	
4.500	2.000	.03196	-.00526	.00508	.01696	.00619	.00619	-1.08010	.00000	.00000	
4.500	3.000	.03347	-.00229	.00612	.00861	.00814	.00814	-1.11910	.00000	.00000	
4.500	4.000	.03543	.00496	.00630	.00558	.00778	.00778	-1.13010	.00000	.00000	
4.500	5.000	.03785	.01058	.00788	.00192	.00726	.00726	-1.13860	.00000	.00000	
4.500	6.000	.04016	.01703	.00679	.00155	.00700	.00700	-1.14260	.00000	.00000	
4.500	7.000	.04222	.02362	.00675	.00428	.00700	.00700	-1.14630	.00000	.00000	
4.500	8.000	.04381	.03085	.00689	.00761	.00698	.00698	-1.11920	.00000	.00000	
4.500	9.000	.04538	.03810	.01161	.01117	.00729	.00729	-1.08960	.00000	.00000	
4.500	10.000	.04696	.04563	.01311	.01315	.00792	.00792	-1.14950	.00000	.00000	
	GRADIENT	.00096	.00466	.00124	-.00031	.00031	.00031				

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(18 APR 74)

## PROBETRIC DATA

L-350 = 2.000 P-350 = 2.000 R-350 = 2.000  
 S-350 = 2.100 RFLV = 2.100  
 PT-JET = .0000 BETA = .0000  
 MTL = .0000

DATE 29 OCT 74

ADDC VA-422(1A-57), OBJECT WEIGHT 980

## REFERENCE DATA

SREF = 2000.0000 SQ.FT. XREF = 1167.0000 IN. YREF = 1200.0000 IN. ZREF = 400.0000 IN. CSREF = .01000

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(ATL071) (10 APR 74)

## PARAMETRIC DATA

L-325 = 2.000 P-325 = 1.000  
SREF = 2.100 EREF = 1.700  
PT-JET = .700 ALPHA = .300

RUN NO.	37/0	RW/L = 1.86	GRADIENT INTERVAL = -5.00	3.00
MACH	BETA	ALPHA	CN	CLW
4.500	-10.000	-1.4082	.00158	-.00227
4.500	-9.000	-1.3365	.00159	-.00227
4.500	-8.000	-1.2782	.00168	-.00240
4.500	-7.000	-1.2163	-.00198	-.00266
4.500	-6.000	-1.1574	-.00282	-.00363
4.500	-5.000	-1.1136	-.00472	-.00526
4.500	-4.000	-1.0830	-.00844	-.01215
4.500	-3.000	-1.0213	-.00945	-.01115
4.500	-2.000	-0.9871	-.01117	-.01091
4.500	-1.000	-0.9498	-.01338	-.00777
4.500	.000	-0.9154	-.01526	-.00361
4.500	1.000	-0.8943	-.01748	-.01107
4.500	2.000	-0.8786	-.01954	-.01574
4.500	3.000	-0.8667	-.02210	-.01954
4.500	4.000	-0.8591	-.02460	-.01998
4.500	5.000	-0.8567	-.02715	-.02296
4.500	6.000	-0.8719	-.03014	-.02673
4.500	7.000	-0.8838	-.03293	-.03020
4.500	8.000	-0.8954	-.03571	-.03320
4.500	9.000	-0.9061	-.03877	-.03620
4.500	10.000	-0.8892	-.03167	-.03256
GRADIENT		.00228	.00225	.00200

CIN = .00353

CCL = -.00352

CPD = -1.13160

WTL = .00000

PCL = .00000

ECL = -1.12640

BCL = .00000

SCL = -1.12160

DCL = .00000

MCL = -1.09420

ACL = .00000

TCI = -1.07410

TCR = .00000

TCN = -.00352

TCW = -1.07770

TCG = .00000

TCB = -.00350

TCU = .00000

TCV = -1.12610

TCR = .00000

TCI = -1.14680

TCN = -.00353

TCW = -1.03700

TCG = .00000

TCB = -.00355

TCU = .00000

TCV = -1.15360

TCR = .00000

TCI = -1.12810

TCN = -.00350

TCW = -1.12530

TCG = .00000

TCB = -.00355

TCU = .00000

TCV = -1.12570

TCR = .00000

TCI = -1.12650

TCN = -.00355

TCW = -1.12690

TCG = .00000

TCB = -.00355

TCU = .00000

TCV = -1.12750

TCR = .00000

TCI = -1.12790

TCN = -.00352

TCW = -1.06700

TCG = .00000

TCB = -.00356

TCU = .00000

TCV = -1.06740

TCR = .00000

TCI = -1.06960

TCN = -.00354

TCW = -1.05750

TCG = .00000

TCB = -.00352

TCU = .00000

TCV = -1.05790

TCR = .00000

TCI = -1.05750

TCN = -.00352

TCW = -1.05750

TCG = .00000

TCB = -.00352

TCU = .00000

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TCG = .00000

TCB = -.00351

TCU = .00000

TCV = -1.05791

TCR = .00000

TCI = -1.05750

TCN = -.00351

DATE 29 OCT 74

## ADDC VI-422(1A-97), CRUET W/ BOTH SWS

## REFERENCE DATA

XDP = 2800,0000 90,FT.  
 YDP = 1167,0000 IN, 15  
 ZDP = ,0000 IN, 15  
 XRP = 1200,3000 IN.  
 YRP = 400,0000 IN, 25  
 ZRP = 1200,3000 IN.  
 SCALE = .0100

RUN NO. 38/0 RAVL = 1.00

GRADIENT INTERVAL = -3.00, 3.00

MACH	ALPHA	BETA	CN	CM	CD	CT	CN	PC	PCL
4.500	-10,000	-19559	.91051	-.03932	.50769	.511987 1504,10000	.522695		
4.500	-9,000	-19723	.90737	-.03776	.50730	.511985 1504,00000	.522613		
4.500	-8,000	-19768	.90491	-.03639	.50679	.511986 1504,20000	.522696		
4.500	-7,000	-19668	.90269	-.03506	.50594	.511980 1503,50000	.52140		
4.500	-6,000	-19353	.89941	-.03363	.50486	.511985 1503,86999	.520567		
4.500	-5,000	-18925	.89681	-.03192	.50306	.511473 1503,00000	.53034		
4.500	-4,000	-18002	.89341	-.02931	.50121	.511411 1503,30000	.53150		
4.500	-3,000	-17350	.89120	-.02768	.50067	.511383 1503,60000	.529920		
4.500	-2,000	-17033	.88955	-.02638	.50026	.511361 1503,70000	.529203		
4.500	-1,000	-16803	.88489	-.02544	.50130	.511371 1503,80000	.52534		
4.500	,000	-16972	.88144	-.02503	.50217	.511368 1503,35699	.52599		
4.500	1,000	-17207	.87942	-.02487	.50334	.511360 1503,20000	.52277		
4.500	2,000	-16310	.87747	-.02463	.50463	.511429 1503,10000	.52846		
4.500	3,000	-15070	.87556	-.02450	.50546	.511469 1503,35699	.522697		
4.500	4,000	-13469	.87273	-.02429	.50622	.511530 1503,00000	.522693		
4.500	5,000	-11823	.86949	-.02363	.50792	.511554 1504,55699	.52171		
4.500	6,000	-10319	.86659	-.02333	.50864	.511611 1503,80000	.51717		
4.500	7,000	-96520	.86308	-.02239	.50924	.511653 1506,30000	.52696		
4.500	8,000	-89862	.85926	-.02112	.51072	.511772 1506,70000	.53046		
4.500	9,000	-86232	.85543	-.01939	.51376	.511831 1507,30000	.522650		
4.500	10,000	-87375	.84954	-.01747	.51779	.511932 1506,00000	.52731		
	GRADIENT	.00355	.00266	.00066	.00037	.00012	-.14536	.00003	

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10/20/74 1:10 AM PT 74 )

## PARAMETRIC DATA

DATE 28 OCT 74

ADDC VA-422(1A-57), DRIVE: W/ BOTH SRB

## REFERENCE DATA

REF = 2650.0000 50.FT. XRP = 1167.0000 IN. X5  
 UREF = 1250.3000 IN. YRP = .0000 IN. Y5  
 GREF = 1250.3000 1N.  
 SCALE = .0100

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(STL073) ( 18 APR 74 )

## PARAMETRIC DATA

L-SRB = 2.000 R-SRB = 1.000  
 SRB06 = 2.100 RVL = 1.700  
 PT-JET = 1500.0000 ALPHA = .000

RUN NO. 30/0 RAVL = 1.00 GRADIENT INTERVAL = -5.00 5.00

MACH	BETA	ALPHA	CN	CLW	CV	CM	CD	PD	ITL
4.500	-10.000	-.33342	-.88004	-.02376	.49543	.01407	1503.20000	.92012	
4.500	-9.000	-.32206	-.87932	-.02344	.49307	.01405	1504.39999	.92779	
4.500	-8.000	-.32140	-.87944	-.02312	.49496	.01413	1504.00000	.92059	
4.500	-7.000	-.31282	-.88017	-.02478	.49598	.01412	1504.80000	.92322	
4.500	-6.000	-.30382	-.87996	-.02443	.49679	.01413	1504.89999	.92356	
4.500	-5.000	-.29176	-.88049	-.02449	.49833	.01421	1504.80000	.92711	
4.500	-4.000	-.28250	-.87976	-.02511	.49895	.01422	1504.80000	.92016	
4.500	-3.000	-.26593	-.88001	-.02515	.50057	.01423	1504.50000	.92368	
4.500	-2.000	-.27351	-.88021	-.02524	.50132	.01423	1503.30000	.92682	
4.500	-1.000	-.27371	-.88276	-.02562	.50042	.01425	1502.89999	.92798	
4.500	.000	-.28753	-.88393	-.02620	.49929	.01445	1502.80000	.92760	
4.500	1.000	-.25249	-.88804	-.02714	.49650	.01544	1502.39999	.92891	
4.500	2.000	-.22659	-.89560	-.02862	.49929	.01553	1502.50000	.92904	
4.500	3.000	-.203615	-.89342	-.03044	.49992	.01528	1502.50000	.92865	
4.500	4.000	-.18743	-.893064	-.03075	.49753	.01498	1502.30000	.92764	
4.500	5.000	-.17614	-.893029	-.03039	.49380	.01531	1502.10001	.92872	
4.500	6.000	-.16810	-.893042	-.02860	.48698	.01534	1502.30000	.92885	
4.500	7.000	-.16691	-.89199	-.02811	.48557	.01718	1502.30000	.92803	
4.500	8.000	-.16729	-.89332	-.02629	.49148	.01769	1502.10001	.92802	
4.500	9.000	-.16535	-.89358	-.02111	.47931	.01844	1502.39999	.92890	
4.500	10.000	-.16142	-.89803	-.02748	.47560	.01686	1502.20000	.93069	
	GRADIENT	.01024	-.00134	-.00070	-.00035	.00307	-.28727	.00011	

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AEDC VA-42211A-571, CRUET W/BOTH END

REFERENCE DATA

SREF =	2000.0000 50. FT.	XRP =	1167.0000 IN. X3
UXRF =	1200.3000 IN.	YRP =	.0000 IN. Y5
DXRF =	1200.3000 IN.	ZRP =	400.0000 IN. Z3
SCALE =	.0100		

PARAMETRIC DATA

RUN NO. AD/0 RVAL = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	C <sub>1</sub>	C <sub>4</sub>	C <sub>7</sub>	C <sub>11</sub>	PCL	
4.500	-10.000	.01639	-1.4706	-.00398	.07820	.003501	-.99226	.000000
4.500	-9.000	.01534	-1.3623	-.00381	.07834	.00439	-1.01060	.000000
4.500	-8.000	.01514	-1.2541	-.00361	.07817	.003862	-1.00710	.000000
4.500	-7.100	.01492	-1.1443	-.00344	.07806	.003773	-1.01060	.000000
4.500	-6.000	.01426	-1.0376	-.003451	.07734	.003864	-1.01060	.000000
4.500	-5.000	.01334	-.09327	-.003492	.07746	.003881	-.99363	.000000
4.500	-4.000	.01226	-.00374	-.003496	.07740	.003592	-.99662	.000000
4.500	-3.000	.01131	-.07353	-.00452	.07721	.003331	-1.01060	.000000
4.500	-2.000	.01017	-.06773	-.00400	.07735	.00285	-1.01060	.000000
4.500	-1.000	.00910	-.06349	-.00326	.07725	.00204	-1.00810	.000000
4.500	.000	.00779	-.05324	-.00231	.07714	.00118	-.99750	.000000
4.500	1.000	.00651	-.04644	-.00173	.07739	.00086	-1.01060	.000000
4.500	2.000	.00569	-.04002	-.00098	.07746	.00008	-1.01060	.000000
4.500	3.000	.00513	-.03409	-.00038	.07706	-.00098	-1.01200	.000000
4.500	4.000	.00465	-.02644	.00035	.07703	-.00117	-1.01060	.000000
4.500	5.000	.00432	-.02219	.00176	.07749	-.00196	-1.03360	.000000
4.500	6.000	.00461	-.01822	.00241	.07753	-.00263	-.96911	.000000
4.500	7.000	.00503	-.01319	.00316	.07752	-.00320	-1.02030	.000000
4.500	8.000	.00537	-.00799	.00400	.07710	-.00357	-.96118	.000000
4.500	9.000	.00546	-.00263	.00477	.06844	-.00314	-1.03063	.000000
4.500	10.000	.00514	.00568	.00511	.06382	-.00212	-1.01060	.000000
	GRADIENT	-	.00098	.00711	-.00134	-.00060	-.01231	.000000

(161070) (16 APR 74)

DATE 20 OCT 74

## ADDC VA-42211A-37, CHEST W/BOTH SRB

## REFERENCE DATA

REFP = 2800.0000 90.07.  
 UREF = 1200.3000 IN.  
 DREF = 1200.3000 IN.  
 ZREF = 1200.3000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

(181073) (16 APR 74 )  
 L-SPD = 2.000 R-SPD = 3.000  
 SRPOS = 2.300 RVNL = 1.700  
 PT-JET = .000 ALPHA = .000

RUN NO. 41/0 RVNL = 1.84 GRADIENT INTERVAL = -3.00/ 3.00

MACH	BETA	ALPHA	CN	CM	CT	CIN	CPD	MTL
4.500	-10.000	-.13930	-.08548	-.00439	.16935	.00410	-1.00000	.00000
4.500	-9.000	-.13204	-.08615	-.00433	.15300	.00461	-1.00000	.00000
4.500	-8.000	-.12393	-.08220	-.00434	.14195	.00553	-1.01060	.00000
4.500	-7.000	-.11710	-.06111	-.00436	.13082	.00537	-1.01060	.00000
4.500	-6.000	-.11024	-.05982	-.00425	.12124	.00529	-1.01060	.00000
4.500	-5.000	-.10537	-.05861	-.00424	.11169	.00486	-1.01194	.00000
4.500	-4.000	-.10198	-.05737	-.00420	.10236	.00480	-1.01060	.00000
4.500	-3.000	-.09757	-.05723	-.00393	.09328	.00447	-1.01060	.00000
4.500	-2.000	-.09311	-.05706	-.00356	.08598	.00369	-1.01060	.00000
4.500	-1.000	-.08987	-.05696	-.00326	.07873	.00298	-1.01060	.00000
4.500	.000	-.08723	-.05720	-.00226	.07196	.00192	-1.01060	.00000
4.500	1.000	-.08420	-.05677	-.00177	.06497	.00114	-1.01060	.00000
4.500	2.000	-.08240	-.05663	-.00122	.05834	.00023	-1.01060	.00000
4.500	3.000	-.08125	-.05636	-.00036	.05164	-.00048	-1.01060	.00000
4.500	4.000	-.08063	-.05573	-.00023	.04572	-.00142	-1.01060	.00000
4.500	5.000	-.08128	-.05533	-.00038	.03869	-.00212	-1.01060	.00000
4.500	6.000	-.08289	-.05508	-.00072	.03232	-.00273	-1.01060	.00000
4.500	7.000	-.08335	-.05482	.00109	.02644	-.00333	-1.01060	.00000
4.500	8.000	-.08332	-.05325	.00066	.02039	-.00373	-1.01060	.00000
4.500	9.000	-.08362	-.05101	.00010	.01473	-.00441	-1.01060	.00000
4.500	10.000	-.08448	-.04827	-.00108	.00850	-.00459	-1.01060	.00000
	GRADIENT	.00261	.00024	.00030	-.00113	-.00073	-.00094	.00000

DATE 29 OCT 74

AEDC VA-222(1A-57) - CRANE WORTH SHD

REFERENCE DATA

WIND = 2000.0000 90.FT.  
LWD = 1200.3000 IN.  
GRD = 1200.3000 IN.  
SCALE = .0100

WARP = 1167.0000 IN. X6  
YWRP = .0000 IN. Y8  
ZWRP = 400.0000 IN. Z3

RUN NO. AVL 0 RVAL = 1.00 GRADIENT INTERVAL = -.5.00 5.00

MACH	ALPHA	BETA	CH	CL	CD	C <sup>T</sup>	CTN	PD	MTL
4.500	-10.000	-32128	-.96361	-.00169	.59829	.02936 1507 .30000	.93332		
4.500	-9.000	-32130	-.96194	-.00057	.59798	.02973 1507 .60000	.93339		
4.500	-8.000	-32124	-.97829	-.00366	.55768	.03001 1507 .80000	.93254		
4.500	-7.000	-32291	-.97356	-.00839	.55735	.03000 1509 .00000	.93254		
4.500	-6.000	-31317	-.96934	-.00824	.55679	.03006 1509 .39999	.93254		
4.500	-5.000	-30874	-.96449	-.04777	.55629	.02986 1509 .30000	.93137		
4.500	-4.000	-30390	-.96016	-.04710	.55544	.02973 1506 .69999	.93191		
4.500	-3.000	-29987	-.95579	-.04658	.55572	.02945 1506 .80000	.93231		
4.500	-2.000	-29143	-.94934	-.00646	.55675	.02939 1509 .00000	.93374		
4.500	-1.000	-28815	-.94312	-.00640	.55909	.02868 1508 .30000	.93231		
4.500	.000	-26023	-.93632	-.06534	.56220	.02711 1508 .70000	.93229		
4.500	1.000	-26749	-.93051	-.06117	.56862	.02513 1508 .80000	.93395		
4.500	2.000	-25986	-.92640	-.05344	.57136	.02319 1508 .80000	.93345		
4.500	3.000	-25110	-.92375	-.04058	.57576	.02151 1508 .80000	.93294		
4.500	4.000	-24357	-.92039	-.02664	.57982	.02004 1506 .70000	.93068		
4.500	5.000	-24253	-.91769	-.01110	.58408	.01844 1506 .69999	.93262		
4.500	6.000	-24343	-.91407	-.03958	.58871	.01671 1509 .00000	.93315		
4.500	7.000	-24458	-.91039	-.03819	.59324	.01517 1508 .89999	.93322		
4.500	8.000	-24918	-.90744	-.03846	.59695	.01385 1506 .60000	.93303		
4.500	9.000	-24811	-.90597	-.03442	.59935	.01310 1506 .50000	.93318		
4.500	10.000	-25089	-.90341	-.03223	.60170	.01269 1506 .70000	.93260		
	GRADIENT	.00713	.00496	.00055	.00033	-.00123	-.00091	.00003	

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(8710700 1 18 APR 74)

PARAMETRIC DATA

L-310 = 2.000 R-310 = 2.000 R-310 = 2.000  
SRFOR = 2.000 RVAL = 1.700  
PT-JET = 1000.000 BET<sub>0</sub> = 0.000

DATE 29 OCT 74

ADC VA-4221(A-37), GROVE WIND TUN

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(161.0777 116 APR 74)

## REFERENCE DATA

WHP = 2000.0000 PSI, WRP = 1107.0000 IN. X  
 LWRP = 1120.3000 IN.  
 GWRP = 1120.3000 IN.  
 SCALE = .0000

## PARAMETRIC DATA

L-370 = 2,000 R-370 = 3,000  
 SRW0 = 2,300 RWL = 1,700  
 PT-JET = 1500.0000 ALWD = .2500

RUN NO. 42/0 RFL = 1.04 GRADIENT INTERVAL = -1.00/ 5.00

MACH	BETA	ALPHA	Q	C <sub>1</sub>	C <sub>2</sub>	CTN	PCL	MTL
4.300	-10.000	-12293	-.92288	-.54415	.61953	.03228 1.697.00001	.92282	
4.300	-9.000	-12236	-.92137	-.54507	.61096	.03201 1.697.00001	.92310	
4.300	-8.000	-11793	-.92061	-.54633	.60306	.03191 1.696.00000	.92307	
4.300	-7.000	-11273	-.92070	-.54656	.59620	.03153 1.696.00000	.92334	
4.300	-6.000	-10974	-.92269	-.54640	.59107	.03048 1.695.10001	.92335	
4.300	-5.000	-10317	-.92356	-.54604	.58540	.02932 1.695.30000	.92330	
4.300	-4.000	-97322	-.92780	-.54696	.57933	.02869 1.695.30000	.92713	
4.300	-3.000	-96969	-.92893	-.54621	.57249	.02869 1.695.60001	.92409	
4.300	-2.000	-90032	-.93124	-.54533	.56398	.02863 1.697.00001	.92391	
4.300	-1.000	-97347	-.93322	-.54623	.56006	.02844 1.697.39999	.92371	
4.300	.000	-96950	-.93585	-.54570	.55460	.02814 1.697.50000	.92352	
4.300	1.000	-95796	-.93829	-.54544	.55061	.02740 1.698.10001	.92359	
4.300	2.000	-95914	-.94071	-.54539	.54694	.02661 1.697.60001	.92344	
4.300	3.000	-97091	-.94238	-.54521	.54394	.02570 1.697.39999	.92259	
4.300	4.000	-96945	-.94367	-.54549	.54224	.02460 1.697.10001	.92374	
4.300	5.000	-95925	-.94522	-.54559	.53796	.02317 1.697.00000	.92636	
4.300	6.000	-95237	-.94573	-.54526	.53717	.02109 1.697.10001	.92656	
4.300	7.000	-95693	-.94793	-.54520	.53727	.01863 1.696.00001	.92731	
4.300	8.000	-96001	-.94822	-.54502	.53707	.01677 1.696.10001	.92551	
4.300	9.000	-95336	-.94869	-.54492	.53694	.01491 1.697.30000	.92606	
4.300	10.000	-95110	-.94905	-.54476	.53527	.01324 1.697.60001	.92636	
		GRADIENT	-.00010	-.00491	-.00056	-.21091	.00000	



DATE 20 OCT 74

ADDC VA-422(11A-37), OVERT WORTH SRS

REFERENCE DATA

XREF = 2880.0000 98. FT. XARP = 1167.0000 IN. Y5  
YREF = 1250.3000 IN. YARP = .0000 IN. Y5  
ZREF = 1250.3000 IN. ZARP = 400.0000 1...25  
SCALE = .0100

PARAMETRIC DATA

RAND.	ST/ O	RVAL = 1.07	GRADIENT INTERVAL = -5.00V 3.00
MACH	ALPHA	BETA	Q1 Q4 C1 C4
4.500	-10.000	.00068	-1.0405 -.00871 .03797 .01192
4.500	-9.000	.00068	-.09424 -.00806 .03791 .01142
4.500	-8.000	.00060	-.08429 -.00766 .03661 .01063
4.500	-7.000	.00055	-.07449 -.00747 .03573 .00970
4.500	-6.000	.00056	-.06491 -.00724 .03597 .00987
4.500	-5.000	.00056	-.05674 -.00690 .03600 .00769
4.500	-4.000	.00056	-.04880 -.00633 .03545 .00734
4.500	-3.000	.00056	-.04150 -.00565 .03459 .00718
4.500	-2.000	.00056	-.03501 -.00495 .03362 .00718
4.500	-1.000	.00043	-.02863 -.00441 .03343 .00717
4.500	.000	.00074	-.02265 -.00360 .03383 .00702
4.500	1.000	.00092	-.01653 -.00331 .03443 .00677
4.500	2.000	.00126	-.01168 -.00223 .03422 .00692
4.500	3.000	.00173	-.00732 -.00123 .03471 .00717
4.500	4.000	.00199	-.00532 -.00027 .03516 .00620
4.500	5.000	.00160	-.00371 .00044 .03610 .00543
4.500	6.000	.00069	.00543 .00119 .04030 .00461
4.500	7.000	.00069	.01042 .00192 .03505 .00377
4.500	8.000	.00219	.01624 .00216 .04556 .00341
4.500	9.000	.00251	.02251 .00295 .04782 .00253
4.500	10.000	.00236	.02697 .00342 .04626 .00254
GRADIENT	-	.00056	.00374 .00414 -.00116 -.00176
L-SRDS	=	3.000	R-SRDS = 2.000
SRRDS	=	3.000	RW/L = 1.760
PT-JET	=	3.000	RETA = .000
10110701 (10 APR 74)			

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DATE 29 OCT 74

AEDC VA-422(1A-57), GREAT WOODS SITE

## REFERENCE DATA

REFP = 2000.0000 30. FT.  
 UREF = 1250.3000 IN.  
 SREF = 1250.3000 IN.  
 SCALE = .0100

(ST-079) ( 16 APR 74 )

## PARAMETRIC DATA

L-SRP = 5.000  
 SRPOS = 3.200  
 PT-JET = .500  
 R-SRP = 2.000  
 RVVL = 1.700  
 ALPHA = .300

RUN NO. 30/ C RVVL = 1.86 GRADIENT INTERVAL = -5.00 5.00

MACH	BETA	ALPHA	CN	CL	CM	CLL	CTL
4.500	-10.000	-.13616	-.01624	-.00700	.07936	.05022	-.1.01000
4.500	-9.000	-.12996	-.02126	-.00687	.07602	.04869	-.1.01540
4.500	-8.000	-.12546	-.02360	-.00624	.07156	.04756	-.1.07900
4.500	-7.000	-.11703	-.02446	-.00593	.06859	.04632	-.1.02930
4.500	-6.000	-.11073	-.02385	-.00538	.06123	.04193	-.1.00440
4.500	-5.000	-.10453	-.02215	-.00496	.05614	.03137	-.1.02000
4.500	-4.000	-.10164	-.02349	-.00474	.05015	.01226	-.1.02570
4.500	-3.000	-.09691	-.02623	-.00447	.04448	.01108	-.1.03900
4.500	-2.000	-.09302	-.02641	-.00424	.04058	.00974	-.1.03770
4.500	-1.000	-.09044	-.02623	-.00423	.03659	.00850	-.1.01000
4.500	.000	-.08630	-.02653	-.00393	.03276	.00550	-.1.01230
4.500	1.000	-.08593	-.02750	-.00350	.02835	.00562	-.1.01700
4.500	2.000	-.08535	-.02864	-.00320	.02447	.00440	-.1.02160
4.500	3.000	-.08169	-.02945	-.00238	.02082	.00311	-.1.01230
4.500	4.000	-.08124	-.03138	-.00138	.01693	.00203	-.1.01000
4.500	5.000	-.08237	-.03301	-.00070	.01343	.00167	-.1.00200
4.500	6.000	-.08472	-.03469	.00021	.00915	.00036	-.1.01120
4.500	7.000	-.08636	-.03636	.00093	.00529	.00172	-.1.01060
4.500	8.000	-.08750	-.03689	.00193	.00118	.00259	-.1.01000
4.500	9.000	-.08876	-.03994	.00293	.00370	.00396	-.1.11250
4.500	10.000	-.09174	-.04139	.00403	.00853	.00551	-.1.09300
	GRADIENT	.00247	-.00067	.00141	-.00416	-.00130	-.00394



DATE 29 OCT 74

## ADDC VA-422(1A-57), OBJECT WEIGHT SFB

## REFERENCE DATA

SREF = 2000.0000 SD.FT. XREF = 1167.0000 IN. YREF = .0000 IN. ZREF = 400.0000 IN.  
 LREF = 1250.3000 IN. MREF = .0000 IN. NREF = 1250.3000 IN.  
 SCALE = .0100

RUN NO. 8010 RFL = 1.87 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	CN	CLW	CDL	CLT	CRW	CDL	MTL
4.500	-10.000	.36030	-.93931	-.03986	.56723	.56723	.02642 1500.0000	.02770	
4.500	-9.000	.36039	-.93930	-.03936	.56717	.56717	.02616 1500.0000	.02771	
4.500	-8.000	.35408	-.93030	-.03951	.56576	.56576	.02672 1500.7000	.02743	
4.500	-7.000	.34872	-.92294	-.03512	.56592	.56592	.02683 1500.7000	.02741	
4.500	-6.000	.34454	-.92273	-.03419	.56143	.56143	.02634 1501.3000	.02690	
4.500	-5.000	.34353	-.91988	-.03568	.55951	.55951	.02620 1501.3000	.02631	
4.500	-4.000	.34270	-.91659	-.03509	.55770	.55770	.02633 1501.3000	.02655	
4.500	-3.000	.34318	-.91399	-.03192	.55560	.55560	.02657 1501.6020	.02697	
4.500	-2.000	.34490	-.91243	-.02754	.55371	.55371	.02703 1502.0000	.02725	
4.500	-1.000	.34616	-.91096	-.04669	.55606	.55606	.02719 1502.2000	.02734	
4.500	.000	.34673	-.9102	-.04661	.55704	.55704	.02719 1502.1000	.02745	
4.500	1.000	.34466	-.90982	-.04434	.55873	.55873	.02703 1502.6020	.02730	
4.500	2.000	.34157	-.90787	-.04214	.56112	.56112	.02656 1502.3000	.02741	
4.500	3.000	.33593	-.90473	-.03989	.56479	.56479	.02564 1503.0000	.02731	
4.500	4.000	.33263	-.90219	-.03786	.5693	.5693	.02420 1503.0000	.02722	
4.500	5.000	.33069	-.90172	-.03624	.57354	.57354	.02236 1503.2000	.02700	
4.500	6.000	.32955	-.90064	-.03431	.57859	.57859	.02037 1503.0000	.02689	
4.500	7.000	.32746	-.89921	-.03253	.58456	.58456	.01838 1503.0000	.02632	
4.500	8.000	.32435	-.89769	-.03142	.58971	.58971	.01628 1504.1000	.02712	
4.500	9.000	.31973	-.89539	-.02979	.59513	.59513	.01393 1504.6000	.02742	
4.500	10.000	.31462	-.89336	-.02838	.60049	.60049	.01162 1504.6020	.02730	
4.500	GRADIENT	-.00122	.00033	.00167	.00142	-.00026	.00273	.00001	

## PARAMETRIC DATA

(16 APR 74)

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DARL 25 OCT 74

AND VA=AV2=V1=V3

INTERVIEW DATA

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L-80A	3,000	R-370	2,000
SUPER 8	3,200	RPL.	1,700
PT-JET 3	1500,000	ALPHA	1,500

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DATE 29 OCT 74

PAGE 10A

ADC V4-422(1A-3N, CRVET W/ BOTH 388 AND 397)

(10/200) ( 10 APR 74 )

REFERENCE DATA

XREF =	8200.0000 IN. RT.	ZREF =	1167.0000 IN. RL
YREF =	1250.0000 IN.	YREF =	.0000 IN. YL
ZREF =	1250.0000 IN.	ZREF =	400.0000 IN. ZL
SCALE =	.0000		

PARAMETRIC DATA

L-REF =	3.000	R-REF =	3.000
SREF =	3.000	RFL =	.000
PT-JET =	150.000	BETA =	.000
SCALE =			

RUN NO. 4010 RFL = 2.02 GRADIENT INTERVAL = -3.00/ 3.00

MACH	ALPHA	BETA	CX	CY	CZ	CT	CR	CP	MTL
4.310	-10.000	.00111	-.83934	-.04370	.48344	.01851	150.30000	.93235	
4.310	-9.000	.00163	-.83454	-.04357	.48392	.01865	150.30000	.93130	
4.310	-8.000	.00212	-.83015	-.04268	.48752	.01872	149.80000	.93059	
4.310	-7.000	.00196	-.82533	-.04179	.48661	.01851	149.80000	.93163	
4.310	-6.000	.00132	-.82034	-.03093	.48502	.01852	149.90000	.93157	
4.310	-5.000	.00044	-.81565	-.03015	.48378	.01867	149.90000	.93232	
4.310	-4.000	.00017	-.81022	-.03972	.48356	.01869	149.90000	.93120	
4.310	-3.000	.00104	-.80460	-.03945	.48395	.01923	149.90000	.93223	
4.310	-2.000	.00136	-.79736	-.03966	.48460	.01931	149.90000	.93099	
4.310	-1.000	.00396	-.78976	-.04053	.48741	.01773	149.90000	.93196	
4.310	.000	.00379	-.78319	-.04117	.49174	.01577	149.90000	.93212	
4.310	1.000	.00219	-.78022	-.04077	.49584	.01384	149.90000	.93346	
4.310	2.000	.00110	-.77896	-.03950	.50193	.01221	150.00000	.93393	
4.310	3.000	.00260	-.77614	-.03933	.50597	.01026	150.10000	.93223	
4.310	4.000	-.00045	-.77344	-.03630	.51229	.00838	150.10000	.93245	
4.310	5.000	-.00936	-.77131	-.03605	.51616	.00691	150.10000	.93006	
4.310	6.000	-.00259	-.76944	-.03137	.51875	.00394	150.00000	.93153	
4.310	7.000	-.00222	-.76723	-.02694	.52035	.00368	149.80000	.93070	
4.310	8.000	-.00241	-.76576	-.02548	.52034	.00642	150.00000	.93296	
4.310	9.000	-.00299	-.76299	-.02458	.51693	.00230	150.00000	.93682	
4.310	10.000	-.00296	-.75918	-.02333	.51535	.01069	150.30000	.93741	
GRADIENT		.00044	.00455	.00044	.33355	-.00132	.24455	.00001	

DATE 20 OCT 74

AEDC VA-42211A-571, CRIVET WORTH SRS (P/P MODE)

REFERENCE DATA

SREF = 2800,0000 50.FT.  
URF = 1290,3000 IN.  
BREF = 1290,3000 IN.  
SCALE = .0100

RUN NO. 11/0 RVL = 1.00 GRADIENT INTERVAL = -9.00 3.00  
MACH ALPHA BETA CN CLW CY CRN PCN MTL  
4.500 -10.720 -.00005 -.93400 -.00036 .00087 .01474 1518.69999 .91472  
4.500 -5.686 .00069 -.91500 -.00726 .00088 .01522 1521.10000 .91633  
4.500 -.537 .01912 -.89292 -.00312 .00287 .01502 1521.00000 .92446  
4.500 4.553 .00570 -.87287 -.00268 .00336 .01253 1520.10001 .91609  
4.500 9.734 .02693 -.84995 -.00221 .00776 .01284 1520.20000 .92296  
GRADIENT -.00264 .00394 .00017 .00010 -.00014 -.00014 -.000125

AEDC VA-42211A-571, CRIVET WORTH SRS (P/P MODE)

REFERENCE DATA

SREF = 2800,0000 50.FT.  
URF = 1290,3000 IN.  
BREF = 1290,3000 IN.  
SCALE = .0100

RUN NO. 12/0 RVL = 1.07 GRADIENT INTERVAL = -3.00 3.00  
MACH ALPHA BETA CN CLW CY CRN PCN MTL  
4.500 -10.014 -.00322 -.89193 -.00057 .00046 .01194 1524.20000 .90869  
4.500 -5.051 1.182 -.89799 -.00186 .00020 .01201 1523.10000 .91099  
4.500 -.008 -.50009 -.90201 -.00012 .00029 .01377 1525.70000 .91415  
4.500 5.066 -.49511 -.90301 -.00011 .00013 .01160 1522.20000 .91842  
4.500 10.112 -.46322 -.90296 -.00103 .00000 .00000 .00000 .00000 .00000

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(STL000) ( 10 APR 74 )

PARAMETRIC DATA

L-SFB = 1.000 R-SFB = 1.000  
SREFS = 1.100 RVL = 1.700  
PT-JET = 1500.000 BETA = .000

(STL000) ( 10 APR 74 )

PARAMETRIC DATA

L-SFB = 1.000 R-SFB = 1.000  
SREFS = 1.100 RVL = 1.700  
PT-JET = 1500.000 ALFA = .000

(STL000) ( 10 APR 74 )

PARAMETRIC DATA

MTL

DATE 28 OCT 74

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AEDC VA-42211A-57. OB/E/T W/BOTH SRS (P/P MODE)

(STL007) ( 16 APR 74 )

REFERENCE DATA

BREF = 2000.0000 99.FT. XRP = 1167.0000 IN. X5  
LREF = 1200.3000 IN. YRP = .0000 IN. Y5  
BREF = 1200.3000 IN. ZRP = 400.0000 IN. Z5  
SCALE = .0100

PARAMETRIC DATA

RUN NO. 27/ 0 RAVL = 1.84 GRADIENT INTERVAL = -5.0V 5.0V  
MACH ALPHA BETA CI CM CY CN PC<sub>L</sub> MTL  
4.500 -10.147 .02035 -.90367 -.05700 .90303 .04574 1400.0000 .91284  
4.500 -5.050 .03661 -.95326 -.05021 .95262 .03566 1400.0000 .91285  
4.500 -.019 .00862 -.92544 -.506 .94860 .03567 1400.0000 .91285  
4.500 5.070 .02258 -.90755 -.05029 .96026 .05119 1400.0000 .91286  
4.500 10.130 .03068 -.97049 -.02636 .96115 .02229 1400.0000 .91286  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

AEDC VA-42211A-57. OB/E/T W/BOTH SRS (P/P MODE)

(STL008) ( 16 APR 74 )

REFERENCE DATA

BREF = 2000.0000 99.FT. XRP = 1167.0000 IN. X5  
LREF = 1200.3000 IN. YRP = .0000 IN. Y5  
BREF = 1200.3000 IN. ZRP = 400.0000 IN. Z5  
SCALE = .0100

PARAMETRIC DATA

RUN NO. 28/ 0 RAVL = 1.84 GRADIENT INTERVAL = -5.0V 5.0V  
MACH ALPHA BETA CI CM CY CN PC<sub>L</sub> MTL  
4.500 -10.134 -.03960 -.91356 -.02244 .90428 .03523 1400.0000 .91284  
4.500 -5.007 -.02573 -.92221 -.05593 .97036 .03522 1400.0000 .91284  
4.500 .067 -.03758 -.92636 -.04439 .94486 .03567 1400.0000 .91285  
4.500 5.162 -.01604 -.93635 -.04012 .91272 .02019 1500.30000 .91286  
4.500 10.206 -.00515 -.94467 -.03734 .49069 .02092 1500.30000 .91286  
GRADIENT .00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000

DATE 20 OCT 74

ADDC VI-6221A-571, CRVET WORM SRB (P77 MODE)

REFERENCE DATA

MACH = 2000.0000 50.FT. XREF = 1167.0000 IN. X5  
URF = 1200.3000 IN. YREF = .0000 IN. Y5  
BRF = 1200.3000 IN. ZREF = 400.0000 IN. Z5  
SCALE = .0100

GRADIENT

RUN NO. AV0 0 RVAL = 1.84 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	CH	CLW	CV	CN	PCW	NTL
4.500	-10.232	-.00268	.96070	-.04771	.26032	.01620	1150.35669	.92136
4.500	-5.193	-.00307	.97267	-.04363	.57440	.01760	1152.80000	.92357
4.500	-1.126	-.00258	.93773	-.04988	.98272	.01635	1154.80000	.90434
4.500	4.869	-.00357	.96216	-.04295	.60721	.00965	1154.75000	.92693
4.500	9.910	-.01121	.90636	-.02847	.61763	.01451	1150.20000	.91598
	GRADIENT	-.00163	.00339	.00306	.00490	-.00152	-.00203	

ADDC VI-6221A-571, CRVET WORM SRB (P77 MODE)

REFERENCE DATA

MACH = 2000.0000 50.FT. XREF = 1167.0000 IN. X5  
URF = 1200.3000 IN. YREF = .0000 IN. Y5  
BRF = 1200.3000 IN. ZREF = 400.0000 IN. Z5  
SCALE = .0000

GRADIENT

RUN NO. AV0 0 RVAL = 1.84 GRADIENT INTERVAL = -5.00 5.00

MACH	ALPHA	BETA	CH	CLW	CV	CN	PCW	NTL
4.500	-10.035	-.17032	.93032	-.04045	.63569	.01817	1157.00000	.92111
4.500	-5.000	-.15173	.93225	-.04048	.61316	.01724	1157.80000	.91879
4.500	.000	-.14501	.93410	-.04040	.57514	.01746	1154.80000	.91479
4.500	5.013	-.15003	.94447	-.04350	.54776	.01895	1150.30000	.92500
4.500	10.086	-.13864	.94874	-.04039	.52312	.01685	1150.80000	.92222
	GRADIENT	-.00000	.00000	.00000	.00000			

L-350 = 3.000 R-350 = 3.000

SREFS = 3.300 RVAL = 1.700

PT-JET = 1500.0000 BETA = .0000

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(ATLANTIC 11 APR 74)

PARAMETRIC DATA

L-350 = 3.000 R-350 = 3.000

SREFS = 3.300 RVAL = 1.700

PT-JET = 1500.0000 BETA = .0000

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